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Vitamines. Marvin D. Schie, Cleveland Med. Jour., April. These exist in minute proportions (yeast, which is very rich in them, yielding 2.5 grams per 100,000) in natural food stuffs. Their chemic nature is not well understood and it is not even possible to say that they are chemically related. They are necessary to growth of animals and their absence produces deficiency diseases, such as osteomalacia, rickets, pellagra, beriberi and scurvy. On the other hand, experiments on chickens fed on polished rice and hence lacking in vitamins which are contained mainly in the seed coats, show them to be immune to Rous' sarcoma and other experiments seem to corroborate the idea that their absence inhibits tumor growth in general.

Allen Treatment in Diabetic Gangrene. J. F. Baldwin, Am. Jour. of Surg., Feb. reports a case in which sugar and diacetic acid disappeared from the urine though sugar remained in the blood. The general though not the local condition improved. Amputation was performed Jan. 5, without incident but the patient died Jan. 7 in coma. Only one previous case is recalled in which coma developed so rapidly. (Note: This case should not prejudice one against the Allen treatment which, indeed should be considered judicially till a considerable mass of favorable and unfavorable evidence has accumulated).

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BUFFALO MEDICAL JOURNAL

Yearly Volume 71.

AUGUST, 1915.

No. 1

ORIGINAL ARTICLES

The right is reserved to decline papers not dealing with practical medical and surgical subjects, and such as might offend or fail to interest readers. Contributors are solely responsible for opinions, methods of expression and revision of proof.

The Beginnings of Education.

Some Suggestions to Parents and Teachers.

By HENRY JONES MULFORD, M. D., Buffalo, N. Y.

First Paper—The Child.

The educational situation of today is somewhat "muddled;" but, if we wish to understand why it is muddled we have only to turn to the dictionary and look up the word "fad." A fad, we read there, is a matter of no importance, or an important matter imperfectly understood, taken up and urged with more zeal than sense. It seems to me that this definition is very "pat" to the situation at hand. Certainly many of the ideas now being entertained as educational may be assigned to the one or to the other side of the definition. In each direction the zeal for accomplishment has outstripped right judgment; the endeavor is well-meaning, but the endeavorer begins with a wrong assumption.

However, do not misunderstand me, I do not mean to say that all endeavor in this direction is upon wrong lines; all light does not issue from a will-o-the-wisp. There is some good work being done along educational lines, of course; but there is a more or less lack of rationality: the procedures have no real scientific basis. And that is what our system of education needs: an exact, a scientifically exact, basis from which to proceed. We gain little through the employment of hit-or-miss methods. The result is confusing to all concerned: to the teacher, and to the parent, to say nothing of the effect upon the child himself. But now, in seeking for the right procedure, in the working out of a scientific method, we do not need to

seek very far: all we need to understand is the adjustment of the educational process to the facts of physical development. These facts embrace the entire organism, for, while the brain is the organ most concerned, all of the other organs have their part to play in the support of the brain. We shall need to understand how the human body has developed; we shall need especially to understand how and why the human brain has developed. **Understanding** these facts we shall know how to proceed in beginning, and in continuing, the education of the child.

I said a moment ago that all we need in education is a scientific basis from which to proceed; but, there is something else that must be mentioned in this connection. Not only must we adjust our system to conform to the individual, but, we must, also, fit the individual into the system. The human brain is very variable in regard to function, no two individuals of the same age are exactly alike in the exhibition of brain power. We must, therefore, find some method for determining the child's brain power so that we shall know where to place him in the educational scale. One fault of the present system is that from thirty to forty children are herded together in one room under one teacher. This system is unfair; unfair to the teacher and unfair to the children. The teacher does poor work because she has too much work to do, and the children, naturally, do not do their best under a teacher who cannot do her best. It may be said, also, that amongst forty children, there are some who are below grade, and some who are above. Those below are injured through the endeavor to endure beyond their strength; those above are retarded through receiving less than they can assimilate. What is needed is a system that will eliminate these irregularities. In these articles I shall offer some suggestions toward that end; but I am not deluding myself with the thought that my suggestions are going to solve all the problems of education. No one man may accomplish that. But, one man may make a beginning; and, if I have done that I shall be content.

The "facts of physical development" are found in the developmental history of the entire organism; but each organ has its own group of facts. The facts covering each organ give the history of that organ as an individual organ, and, as an organ associated with other organs. The organs of the human organism are an association of organs working together for the common good; they support one another, and they support the individual. Any organ failing to keep in line with the others sets up a disturbance that is reflected in the well-being of the individual. Such an individual immediately is thrown off the normal and he is unable to accomplish as much as he did when he was normal; both his physical and his

mental strength are impaired. Such being the case, we readily can understand the importance of a complete general examination in an abnormal individual. And, in the case of a child, such an examination will possess its full value only when undertaken by a man who fully understands the evolutionary history of each organ.

But, now, while our investigation must include all the organs of the child's body, there is one organ which is at the head of all and to which we must give our chief attention. That organ is the brain. The adult brain holds all the secrets of man's development; but it is the child brain that holds the key that unlocks those secrets. We seek the developmental plan of the brain: how its cells are developed, and when the various centres come into action. The growth of the brain during the first eight years of its existence reveals that plan. Through study of the immature we learn the secrets of the mature.

We all appreciate, I know, that it is the grey matter of the brain that holds man's destiny; it is here that the "secrets" lie. This grey matter is found mostly upon the surface of the hemispheres, being not more than an eighth of an inch in depth. If this substance were just an even layer over the outer surfaces of the hemispheres there would be but very little of it, and man would not be the advanced creature he is; he still would be the chattering ape he was many, many thousands of years ago. The surface of the brain is convoluted, and we immediately see the importance of this arrangement. The development of the convolutions has given more brain surface to man, for now the grey matter dips down about every surface of these convolutions, and this has taken him out of the ape class. As man developed in the process of his evolution greater and greater demands were made upon his brain, and it was these demands that forced his brain to grow and the convolutions to form. But the brain could increase in size only with great difficulty owing to the bony walls closely surrounding it; it could develop grey matter through developing convolutions much more easily than through developing size, and, so, the ever-increasing grey cells made places for themselves by, as it were, carving out the convolutions. In fact, it is in the depth of the fissures that separate the convolutions and in the irregularity of the convolutions themselves that the importance of the man brain lies. In the brains of the lower monkeys there are almost no convolutions; in the higher apes the convolutions are well-marked, but they are large, coarse and uncomplicated. In prehistoric man the surface of the brain must have been but little more complex than that of the ape, for prehistoric man had little beyond the merely animal needs, and, so, his grey matter was enough only to meet those needs.

We have in the grey matter of the hemispheres the centres that control the external activities of the individual. These centres may be divided into groups. Group one would be made up of the centres governing the special senses; group two would be the motor centres, those governing muscular action; and group three would be the intellectual centres, those having to do with thought and reason. Now, these centres, while they are made up of the same kind of tissues, are not exactly alike. They differ in the size, shape and arrangement of their cells, and in the development of their activities. The centres do not all come into action at the same time, but follow a certain developmental sequence, the order being as follows: smell and taste, sight, hearing, tactile sensation, the motor centres, and, lastly, the higher centres.

There are two directions in which these centres must prepare themselves for functioning. First, the cortical cells must be ready for action; and, second, the fibres leading to and from the cells must be ready to transmit impulses. The cells develop first, and then the fibres; but the fibres when first formed are not yet fully capable of conducting impulses. Each fibre needs a protective covering, or insulating sheath, before it is quite ready for function. Investigation has shown that the afferent or sensory fibres, those carrying impulses to the centres, are the first to become invested with this sheath; and that the efferent or motor fibres, those carrying impulses from the centres, develop their sheaths next. Certain fibres which connect the various centres in the cortex, and which are called association fibres, are the last to receive their sheaths.

The fibres of the centres of special sensation are, mostly, afferent fibres, while the fibres of the centres in the motor area are both afferent and efferent. From this we can understand how these centres can receive impulses before they can respond to them. It is because their sensory (afferent) fibres are ready for work before the motor (efferent) fibres are. These areas are the first to functionate in the man brain. And, not only are these the first to functionate in the brain of today, but they were the first to functionate, the first to develop, in the prehistoric animal brain. They were the first animal centres, and they were the first man centres; they were the first cerebral centres needed by the animal organism. Now, as these were the first centres to develop they must be the oldest, and I call them, therefore, the primitive centres. These centres have existed from, and before, the actual beginning of man; man always has used them and always will. It is obvious, then, that these centres must receive first attention in any scheme having to do with brain education.

The fact of great importance here is the dominance of the primitive centres; they dominate all the other centres because

they are the oldest and the strongest. In the brain of the prehistoric animal these centres were the only centres in function; in the brain of prehistoric man these centres still dominated, but their action was becoming associated with the action of the new centres, the higher centres. The man is developing, but he is developing through the animal; it is the activity of the primitive centres that is developing the higher. This has gone on until the modern brain has been developed, but the modern brain is still the same kind of brain. It is a combination brain, a combination of animal brain and man brain, of primitive centres and higher centres. But in this combination the primitive area is still the dominant area, as it was in the primitive brain. The development of the higher centres still depends upon the activity of the primitive centres. I urge that this be not forgotten, for it is a point of some importance.

Up to this point we have given our attention to brain structure, but, in the study of the human brain, our interest lies in the direction of function as well as in the direction of structure. The two are inseparably connected. Structure comes first, of course, and function follows when structure is complete, function being the expression of the structure in action; but, perfect structure does not necessarily imply perfect function. While the capability for function is born with the brain that capability is not developed into complete function through mere increase in the brain mass. Function here is developed through external agencies, through action, through training.

The brain of the man of today is larger and heavier than the brain of the prehistoric man animal; but, so far as fundamental structure is concerned there is no difference. It is true that new centres have developed in the one, but the tissue in which these new centres are situated is the same kind of tissue as that in which the old centres developed. There has been an actual increase in the amount of cortex, but there has been no alteration in its fundamental character. The cellular elements differ in regard to shape, size, and arrangement in the two areas, but they remain the same cells so far as structure is concerned. We see, then, that, structurally, the animal brain and the man brain are the same. The man brain is no stronger structurally, but it possesses the high function of thought, which the animal brain does not.

This thought function is our greatest concern for it is that which gives man his position at the head of the animal scale. Without thought man becomes nothing more than a beast. But now, there are two factors upon which the quality of thought depends: memory and fatigue. In fact, without memory there can be no thought; and, in the presence of fatigue, the thought

process is more or less impaired. **It is memory that makes man; it is fatigue that unmakes him.**

It is in memory that the real strength of the brain lies, for it is memory that is the basis of all brain activity, especially of the higher centres in man. If man did not possess memory he could not remember; and, if he could not remember, he could not think, he could not reason, he could not achieve. He would be without ideas of any sort, for ideas cannot originate within a brain which cannot remember. In such a brain an idea can come, if it can come at all, only through an external stimulus: a sound, an image, a sensation, would arouse certain cells into activity, and an idea would be born as a result of the stimulus, but, the moment the stimulus was removed, the idea would vanish, for there would be no memory to hold it.

There are two kinds of memory: reflex and conscious. Reflex memory exists in all living cells; conscious memory is peculiar to certain cells. Reflex memory is memory that responds to an external stimulus; the cell knows how to act, but it does not act until told, it cannot direct its own action. The cells of the various organs of the human body have this memory. The organ cells perform the special function allotted to them when the proper stimulus comes to them. Conscious memory is memory under the control of the individual; the cells can revive the images stored in them. This form of memory exists only in the cells of the brain cortex. In fact, these brain cells have both forms of memory, the reflex and the conscious. They can respond to external stimuli and they can respond to stimuli originating within themselves; an individual can have images stored in his memory revived through some outside influence, or, he can sit down and revive them through pure brain effort. This is an important point in our understanding of the human brain; this double memory will explain a number of puzzling things in relation to brain action.

Is there a special centre for memory in the brain? I think we have answered that question above. If the cerebral cells possess conscious memory what is the need of a special centre? And, too, one centre could not take care of all the memory impulses coming into the brain; it would require a great amount of cortex, and would unnecessarily complicate an already complicated organ. I believe that each centre has its own memory, the vigor of the memory depending upon two factors: past experience of the centre, and the present physical condition of the cells within the centre. By past experience I mean training; and by present physical condition I mean any condition interfering with cell activity.

Fatigue is the condition interfering with cell activity that most concerns us here. Fatigue is our greatest enemy. It invades all parts of the organism, muscles, organs, everything,

including the very brain itself. And the worst of it is that it comes through perfectly natural channels, that is, through the usual body activities. It is, only, in fatigue, that the action has become overaction; and overaction means overwork, and overwork means fatigue. Any organism suffering from fatigue is a tired organism, and a tired organism is a weak organism; it is one that breaks down easily. In this respect it may be said that fatigue is at the bottom of all disease; that it is the ultimate cause of disease. Now, man's real strength lies in action, action is the life of his muscles, of his organs; but, as it is his life, so it also may be his death. Normal activity encourages growth; overactivity retards growth. Action is the strength of man's organism, fatigue is the weakness of its strength.

Whenever a muscle contracts, or a brain centre acts, there occurs within the cells of the part concerned a chemical reaction. Now, a chemical reaction is a somewhat complicated process. It consists in the splitting up of the old compounds and the formation of new, with the liberation of force and heat. In the chemistry of living tissues the results of the reaction are of vast importance, for, upon their completeness, depends the well-being of the organism. In the living body the reaction within the cell may not be perceived, only the result becoming apparent. We know that heat and force have been produced, for we note the increase in the temperature of the part, and its increased capacity for action. Of the new substances formed within the cell some are of further use to the organism and are stored up, while the others are merely waste products. These waste matters are all harmful to the cell, some acting as mechanical obstructions, some as actual poisons to the cell substance. It is obvious, then, that, if the waste matters are allowed to remain within the cell, the cell cannot properly perform its function. It becomes necessary, therefore, to remove this waste from the cell as fast as it is formed if we want that cell to act properly. One of the functions of the blood is the removal of the waste. The plasma, the fluid portion of the blood, completely surrounds each cell and dissolves out from it these unneeded products of its activity. Later these products are removed from the blood itself through the action of the skin and kidneys.

If, now, these waste matters are formed faster than they can be removed the action of the cell becomes clogged or weakened; the individual suffers from fatigue in that part. An experiment by Dr. Alexis Carrell will illustrate this. Dr. Carrell cuts a small piece of tissue from a living muscle and keeps it alive outside of the body from which it was removed. He is able to do this by placing the tissue in a current of blood serum kept at the temperature of the body. This supplies the normal

conditions under which the muscle grew in the body in all but one direction. All goes well for a time. Then the tissue begins to change; its activity becomes less and less, and, finally, if left there, it will die. But now, Dr. Carrell removes the piece of tissue from the blood serum, washes it in warm salt solution, and then replaces it in the serum. At once the tissue proceeds to take up nourishment from the surrounding fluid as it did before; it continues to live. What happened to that tissue before it was removed from the blood serum? It was being choked by its own waste. There being no vessels to carry off the waste products of the cell chemistry those products were retained to embarrass its action. The washing of the tissue in salt solution removed the waste and the cells were enabled to resume their former activity.

It is the same with a fatigued muscle or a tired brain. The fatigue originates through the crowding in upon the cells of the structure concerned of the products of its own activity; but the fatigue may be **removed** by washing from the part these products. This the blood does; and, once the fatigue-producing substances are removed, the cells return to their former vigor. But this return to normal may be modified by a too long period of the fatigue-producing activity, or, by a too short period of rest following the fatigue. In either event there will follow some permanent alteration in the cell structure, and a permanent alteration cannot be changed back to normal.

In fatigue of the brain the cells of the grey matter are unable properly to perform their function because of the presence of this tissue waste. The cells lose their acuteness of perception and the incoming impulses are not received in the usual clearness. There is always an impairment of function, and, often, an entire suspension; the cell, under the influence of fatigue, is not itself. Now, if the function of the cortical cells is interfered with in this manner, it means, in its ultimate reaches, that it is the faculty of memory that is injured. For, if the cell cannot perform its function normally, if the sensory impulses are not received as they should be, if the receiving apparatus is weak, then the sensory impression is not going to be retained; the individual is going to forget. We can appreciate, then, just what fatigue does to man. The strength of his brain depends upon its thought faculty; the strength of the thought faculty depends upon memory; and, the vigor of the memory depends upon the presence or the absence of fatigue. As I said once before: It is fatigue that unmakes man.

As we have seen, the animal brain had no strength beyond the strength of structure: it had no thought strength. And the man brain had no thought strength until the thought areas became conscious, until the cells of the thought areas developed conscious memory. Although conscious memory came be-

fore thought, the development of thought and conscious memory went on together during the early epochs of man's existence. If, then, memory was coeval with thought and had its seat in the same cortical cells, that which affected thought would affect memory. If the higher centres were developed through action then must memory also have been developed through action. But the development of memory was slow, just as the development of the brain cortex was slow; both developed through infinite effort and over a long, long stretch of time. Even now the growth of memory is a matter of some pains. The brain cells are impressionable and respond quickly to sensory impulses, but they do not always retain the impressions brought to them; the ideas do not at once enter into the cell consciousness. Usually the same impulse has to be repeated over and over again in order to make the idea capable of being recalled; but, the vigor of the memory does not depend upon the number of times the same impulse is received by the cells. If it did teaching would be no task at all. That which does determine the strength of the memory is the manner in which the sensory impulse originates, and the condition of the cells receiving that impulse. In plain English, it is the method of the teacher, and the presence or the absence of fatigue.

The difference between the adult brain and the child brain is a difference of capacity. It is much the same difference that exists between the man brain and the animal brain. The child brain has the same structure that the adult brain has, but it hasn't the same development. The convolutions and the fissures are there, but the convolutions are not so complicated and the fissures are not so deep. The child brain is merely a child brain, and is no greater than the age of its possessor. That is, in the child under eight years of age, the brain is not yet in control. At this period of life the child is controlled by action; his brain is being developed through action, and is not yet strong enough to direct the activities of the individual. **In the child action controls the brain; in the adult the brain controls action.**

Knowing this we shall know how to approach the child brain; through it we learn that the brain of the child is the measure of the child's capacity. I mean by that that the child's capacity for study is determined by the age of his brain. Now, this does not mean, necessarily, the age of the child in years. It means the developmental age of the brain, the stage of development of the cortical centres. It often follows that the development of a brain is out of all proportion to the years of its possessor. We frequently see children of, say six years, who are as bright as those of eight, or, as dull as those of four; the brain development in the one being at the

eight year period, and in the other at the four. It is obvious here that, if, in either case, we attempted to teach the child by the six year method we should be doing him an injustice. In the first instance there would be no actual harm done; the result would be, only, that the child's progress would be retarded through failure to supply as much as the brain could take care of. But in the second the result would be vastly different. In this the matter urged upon the brain would be more than it could assimilate, and there would be actual harm done to the brain structure through this forcing of an immature organ. This harm might be such as permanently to cripple the action of the brain centres.

We should, then, be very careful as to how we approach the child brain. **I believe that no child should begin formal study whose brain is not eight years old.** My reason for that belief lies in the fact that the human brain does not complete its growth until about its eighth year. Before that time it is in process of growth, and, is not ready to assume the functions of the full-grown brain. In the early years of its existence the child brain is, in fact, no more than an animal brain; it is, almost wholly, a motor brain, a reflex brain as it were, a brain of action. It is a brain in the evolutionary stage; it is the pre-historic brain, bound by the limitations of its evolutionary ancestors.

The brain is at once the strongest and the weakest of the organs of man. It is the strongest because it is the organ in control; it is the weakest because it is the youngest of all his organs. In the process of the development of the major organs of the body the brain must have been the last for which man felt the need. It would be the youngest, therefore, because it was the last to develop. And, as it was the youngest in the evolutionary scale, so is it also, the youngest in the development of the child; as it was the last organ to develop during man's long, long, period of evolution, so is it now the last to be called into action after man is brought into this world. That is, the brain does not become a conscious instrument until some years after the birth of its possessor.

The growth of the brain in the child repeats the evolutionary history of that organ. The various epochs through which man has passed, each epoch having extended through many thousands of years, have left their marks upon the brain. Among those epochs might be mentioned that of the brute-man whose strength and savage temper dominated everything; that of the cave-man whose beginning thought added crude cunning to the strength of the first; and that of the tribal savage into whose developing higher brain centres crept imagination and superstition. And, because each epoch endured through so long a period, the characteristics of each have left

their indelible impress upon the brain cells; that which the brain centres did through so long a period then they do now through force of habit. The structure of the centres has been permanently marked, and we might, therefore, call these habits "structure-habits." These structure habits reveal themselves through the brain action of the individual. This will help to explain why some men seem out of all proportion to their environment: why some are all brute, some are all selfishness, and some mere star-gazing mystics.

The child brain attains its full growth at eight years; but, even then, it is not capable of full function. The higher centres are only just coming into activity. During the period of its growth it has been a motor brain, and it still is a motor brain, but now, the action of the old centres, the motor, is being complicated by the action of the new, the thought centres. The simple brain is becoming a complex brain. The complexity arises through the opening up of the higher centres; but we only have to remember that these higher centres came into being through the lower. The primitive centres were the dominant centres in the beginning, and they still are the dominant centres. The child brain being a primitive brain must develop as the primitive brain developed.

The primitive brain, then, the brain of action, is what most concerns us in the child; it is from this direction that the child may best be understood. The child is all primitive, all his impulses arise through the primitive centres. The "vagaries" of child life are seen to be just primitive impulses, impulses without thought behind them. There can be no real thought at this period for the thought centres are not yet in control. Thought began in man only after the motor areas had been developed; and the child, repeating within the period of a few years, man's long drawn out evolution, develops his thought as man developed his.

In conclusion I will remind you that there are two facts to be remembered here. First, that right brain action depends upon right development of the brain centres. Second, that the development of the centres comes through action. We cannot instruct a child whose brain centres have not developed; and, in order properly to instruct one whose centres have developed, we must know just when those centres are ready to receive instruction and how best to present it to them. In teaching there is but one direction through which sane results may be attained: we must remember that the primitive centres dominate. The higher must develop through the lower; the brain of thought comes through the brain of action. In short, the best way to teach a child, the best way to develop his brain is through his activities.

The Federal and State Narcotic Laws.

HENRY W. HILL, LL. D., Buffalo.

Some confusion has arisen as to the provisions of the Federal and State laws relating to the sale of narcotics.

The Act of Congress approved December 17th, 1914, which took effect on March 1st, 1915, known as the Harrison Act, relating to the production, importation, manufacture, compounding, sale, dispensing or giving away of opium or coca leaves, their salts, derivatives or preparations and requiring the registration of all persons dealing therein as well as those giving prescriptions for the use of the same, by its terms relates to the whole of the United States, the District of Columbia, the territory of Alaska, the territory of Hawaii, the insular possessions of the United States to the canal zone. The Act is primarily one of registration and the making and preservation of records of the sale, distribution, dispensation and possession of preparations and remedies, containing more than 2 grains of opium, or more than $\frac{1}{4}$ of a grain of morphine, or more than $\frac{1}{8}$ of a grain of heroin, or more than 1 grain of codeine or the salts, or derivative of any of them in 1 fluid ounce, or if solid or semi-solid preparation in one avoirdupois ounce, or to liniments, ointments, or other preparations which are prepared for external use only, except liniments, ointments, and other preparations which contain cocaine or any of its salts or alpha or beta eucaine or any of their salts or any synthetic substitute for them; provided, that such remedies and preparations are sold, distributed, given away, dispensed, or possessed as medicines and not for the purpose of evading the intentions and provisions of this Act. The provisions of this Act shall not apply to decocainized coca leaves or preparations made therefrom, or to other preparations of coca leaves which do not contain cocaine.

The Act makes it unlawful for any person not registered under it or who has not paid the special tax to have in his possession or under his control any of the aforesaid drugs and no pharmacist is permitted to sell, dispense or distribute any of the aforesaid drugs to a consumer, except in pursuance of a written prescription, issued by a physician, dentist or veterinary, duly registered under such act, dated on the day signed, which prescription shall be preserved for two years and shall be filed in such way as to be easily accessible to inspection by Federal Officers. A separate file of all such prescriptions must be kept by each druggist and apothecary.

The Commissioner of Internal Revenue with the approval of the Secretary of the Treasury may make all needful rules and regulations for carrying the provisions of the Act into effect.

The Commissioner of Internal Revenue has ruled that "a physician, dentist, or veterinary surgeon can make use of any prescription blank, provided the same is properly dated and signed and has indicated thereon the physician's address, his registry number, and the name and address of the person for whom such prescription is written. The government does not furnish a form upon which prescriptions may be written and the special order form can not be used for this purpose."

He has also ruled that "Only original prescriptions can be filled by druggists and apothecaries and cannot be refilled without violating the law."

The Act expressly provides that it shall not impair, alter, amend, or appeal any of the provisions of the Act of Congress approved June thirtieth, nineteen hundred and six, entitled "An Act for preventing the manufacture, sale, or transportation of adulterated or misbranded, or poisonous, or deleterious foods, drugs, medicines, and liquors, and for regulating traffic therein, and for other purposes," and any amendment thereof, or of the Act approved February ninth, nineteen hundred and nine, entitled "An Act to prohibit the importation and use of opium for other than medicinal purposes," and any amendment thereof.

The constitutionality of the Pure Food and Drugs Act enacted by Congress on June 30th, 1906, has been upheld by the Supreme Court of the United States in various cases.

As already stated the Act of Congress approved December 17, 1914, in relation to the sale and use of narcotics that is opium, coca leaves or the sales of derivatives thereof in express terms applies to the United States and the Collectors of Internal Revenue are charged with its enforcement. Physicians and pharmacists are required to register under it, pay the annual tax imposed, use the order blanks prescribed by the Commissioner of Internal Revenue with the approval of the Secretary of the Treasury, and pharmacists are prohibited from selling, dispensing or distributing any of said drugs to a customer except under a written prescription of a duly registered physician, dentist or veterinary surgeon, and such prescription should be dated on the day when signed by the said physician, dentist or veterinary surgeon and preserved for a period of two years, accessible to inspection by Federal Officers. Other provisions are made in detail as to manufacturers and jobbers selling to dealers that need not be described. Furthermore the Commissioner of Internal Revenue with the approval of the Secretary of the Treasury may make all needed rules and regulations for carrying the provisions of the Act into effect.

The Federal law is a complete code and was intended to provide all the law that is necessary on the subject of narcotics. In fact it is all the law in force in some parts of the

United States. However, it recognizes the fact that there may be state and territorial laws or municipal ordinances regulating the sale, prescribing, dispensing, dealing in or distributing such drugs and such local laws will undoubtedly be held enforceable, where they are not in conflict with the Act of Congress. The states are empowered "to make regulations concerning the same subject matter, reasonable in their terms and not in conflict with the Acts of Congress." That brings us to the consideration of the New York Statutes. Are these in conflict with the Act of Congress on this same subject? Are they reasonable?

Under authority given to the Commissioner of Internal Revenue, he has prescribed rules and regulations in detail, some of which were incorporated by Chapter 327 of the laws of 1915, in the Public Health Law of this State, thus producing a duplication of requirements and reports, wholly unnecessary and intended to harass and annoy pharmacists without serving any useful purpose.

An attempt has been made by amending sections 245, 246, 247, 248, 249, 249-a and 249-d of the New York Public Health Law to harmonize those provisions with the provisions of the Act of Congress hereinbefore referred to and the rules and regulations adopted thereunder so as to avoid conflict.

The introduction of the bill which became chapter 327 of the laws of 1915, is an admission that the two laws were in serious conflict and it is quite possible that they have not yet been fully harmonized.

The Commissioner of Internal Revenue, with consent of the Secretary of the Treasury, has . . . the . . power conferred upon him to . . . make such additional rules and regulations as he may deem necessary to carry into effect the Act of Congress and those rules and regulations, having the authority of law, are likely still to complicate the conditions under which pharmacists now practice their profession.

The conflicts heretofore existing in relation to the forms and requirements of order blanks prescribed by the State and by the Federal Government, which superseded the former and which now have the force of law, is one of the striking evidences of conflict between the two statutes.

Another is the interpretation by the Commissioner of Internal Revenue to the words "dispense," "distribute," or "prescribe," that they are synonymous, which is quite at variance with the popular as well as the technical meaning and use of the word "dispense." Heretofore that has been restricted to the actual delivery of drugs by pharmacists and others to the consumers, but the Commissioner of Internal Revenue enlarges its meaning to include the writing of a prescription by a physician. This cannot fail to produce serious conflict with the

wording of the New York statute law, which statute preserved the old well settled etymological distinction in the meaning of the words "dispense," "distribute," and "prescribe." These meanings are well understood and sanctioned by long usage.

This ruling of the Commissioner has the force of law until reversed by the Federal Courts, and supercedes the interpretation heretofore given to the terms of the New York statute. The Federal statute is a complete code in and of itself and assumes the prescription of the physician is a bona fide authorization upon which the pharmacist may rely and act without verifying such prescription as required by chapter 327 of the laws of 1915, amending the foregoing sections of the Public Health Law and by chapter 470 of the laws of 1913, amending the Penal Law in relation to the sale or possession of cocaine or eucaine. This enlarged meaning given to the word "dispense" increases the responsibility of the physician and tends to lessen the responsibility of the pharmacist, as it ought to do. Local authorities have been inclined to hold pharmacists responsible for the acts of physicians who alone come into contact with the patients and are required to make physical examinations before writing prescriptions. Pharmacists have no such information and are not responsible for the diagnosing cases and prescribing remedies. Evidently the framers of the New York law did not anticipate the interpretation that would be given the word "dispensing" by the Commissioner of Internal Revenue and it is doubtful whether the New York Courts would broaden the term to include "prescribing." Therefore wherever it appear there will be a conflict of the two authorities, both asserting jurisdiction over the same matter.

Another variance is that the state laws require before filling the same, verification of the physicians' prescriptions by telephone or otherwise, as to all drugs mentioned the foregoing sections of the Public Health Law and by inquiry as to cocaine and eucaine and their salts, whereas the Federal Act prescribes no such unreasonable requirement but the Collector of Internal Revenue has ruled that "a druggist, when receiving a prescription for any of the drugs coming within the scope of this law, should carefully scrutinize such prescriptions and where he has reason to believe that the same is forged or that the quantity of drug prescribed is unusually large, he should, before filling such prescription, satisfy himself that the same is genuine and properly prepared. Every druggist should know the signature of the reputable, legitimate physicians in his locality, and should he fill a fraudulent prescription he would be liable to prosecution."

The procedure established by this ruling is deemed by the Federal authorities a sufficient protection to the public and

might well be adopted by this State and thereby obviate the requirement of verification when it might be impossible to comply with it owing to the fact that the physician cannot be reached, if out on calls or out of town.

The essentials of the prescription prescribed by the Federal Act are accepted and are deemed a sufficient protection to the public and are much more reasonable than is the requirement of the state law, which discredits the validity of the prescription and is a reflection on the medical profession and an unreasonable burden to the profession of pharmacy.

Again the state laws prohibit the refilling of prescriptions (Section 246 of the Public Health Law and Section 1746 of the Penal Law), whereas the Act of Congress contains no prohibition against refilling, although the Commissioner of Internal Revenue has promulgated Art. 12 of his regulations, which does prohibit the refilling of prescriptions and he has also ruled that they may not be refilled. That part of the regulation, prohibiting the refilling of prescriptions, must be observed until reversed or modified by the Federal Courts.

This is a regulation on the part of the Commissioner of Internal Revenue, but it may be within the authority conferred by Sec. 1 of said Act of Congress approved December 17th, 1914.

Furthermore what good reason can there be for an almost complete duplication of requirements to be observed by pharmacists of this state? If the Federal Government is not only to invade but also to usurp the functions of the states as to the public health . . . why burden pharmacists with the attempted observance of two or more separate and more or less conflicting laws on the same subject? These are not likely to be or to remain identical, while the Commissioner of Internal Revenue be given the power to promulgate rules and regulations, which may be modified or changed as often as were the rules, regulations and decisions under the Income Tax Law, so that while attempting to conform to the unsettled policy of the General Government, pharmacists may encounter the over zealous activities of local officers, that recognize no law other than state laws, which are as transitory and as changeable as the capricious activities of certain interests that have been sponsors for the enactment of the several sections of the Public Health Law and their annual modification for half a decade, not wholly for the public welfare.

Solidified Carron Oil. Pract. Med., March, 1915. Linseed oil eight ounces, white wax two ounces, lime water six ounces. Melt the wax, add the oil, and when mixture is uniform add the limewater, previously warmed. Mix until nearly cold with an egg beater.

Phylacogen in the Treatment of Diseases of the Eye.

By V. A. DECOT, M. D., Buffalo, N. Y.

Many diseases of the eye, because of the constitutional factor back of them, are most difficult to treat, especially those dependent upon gonorrheal and rheumatic infection. It is impossible to benefit the ocular disorder until the constitutional disease, whatever it may be, has been successfully controlled. The classical internal treatment with sodium salicylate and like drugs has been of considerable value especially in eye diseases based on true rheumatic infection, but for cases dependent upon gonorrhea and ordinary non-specific infections the lack of a specific remedy has been keenly felt. For that reason any preparation giving promise of dependable action against the cause of an iritis or conjunctivitis or other disease of the eye will be most heartily welcomed; and I believe, from my experience in over a hundred cases, that we have such a product in Phylacogens.

Of the many cases of gonorrheal iritis and conjunctivitis, rheumatic iritis, post-operative iritis following cataract extraction, ophthalmia neonatorum, and similar diseases which I have treated with Phylacogen in the past few years, the great majority have been entirely successful, and the treatment has come fully up to expectations. The percentage of cases in which relief was prompt and certain was much greater than that obtained after the usual remedies, and benefit was obtained under conditions that left little doubt that the results might properly be credited to Phylacogen therapy.

The Phylacogens have been at the command of the medical profession a sufficient length of time so that most, if not all, physicians are more or less acquainted with their composition, their indications and the theory upon which their administration is based. They are not a sterile suspension of bacteria in physiologic salt solution like the bacterial vaccines; but are formed by the growth of micro-organisms on proper culture media. The germ bodies are discarded, and the filtrate, properly prepared, is what is made use of in the treatment of disease under the name Phylacogen. Mixed Infection Phylacogen is a polyvalent product of several bacteria met with in the common mixed infections; while Rheumatism Phylacogen and Gonorrhea Phylacogen differ from this basic preparation in that they contain fifty per cent. of the metabolic products of the *Streptococcus rheumaticus* of Poynton and Paine and of the *Gonococcus* respectively.

The Phylacogens are administered in larger doses than are the bacterial vaccines, and are at times given intravenously to advantage, a procedure never resorted to in vaccine therapy,

Five to ten cubic centimeters of Phylacogen, injected subcutaneously, is not an excessive dose, while the intravenous dosage varies from a fraction of one cubic centimeter to as high as five. One or two c. c. may be administered subcutaneously as a primary dose in an adult and increased from day to day; although I have given this same dose to an infant, five days old, without the slightest ill effects, as will be made clear, in one of the cases that I wish to report.

Following a subcutaneous injection of Phylacogen, the site becomes reddened and tender in a few hours. This is not due to infection, but is rather to be viewed as a specific reaction of the surrounding cells in performing their function of preparing protective substances for use of the blood to destroy whatever bacteria may be present in the body from the original disease. In a rare case the patient complains of this local reaction as exceedingly annoying. But in the majority of instances the part into which injection is given is favored for a day or two and little complaint is made.

After an intravenous dose, or a large dose subcutaneously, what is known as a general or constitutional reaction ensues. This is manifested by chilliness or a distinct chill, rise in temperature and in pulse-rate, nausea and occasionally vomiting, shooting pains, etc. While many cases are cured without evidence of this reaction at any time, yet there are others which show a rapid stride in improvement immediately after a pronounced chill and increase in temperature. And this sudden improvement sometimes takes place after previous, reaction—free Phylacogen treatment has apparently accomplished little. I have never seen untoward results from these reactions, and simply ignore them. The patient, too, as a rule, pays little attention to them, especially when decided improvement is manifested.

It is not intended that Phylacogen treatment shall entirely displace local treatment. The installation of atrophine solution in iritis, for example, is very necessary for its mechanical effect on the Iris. The same is true of hot and cold applications, which alter the blood supply of the diseased parts and remove the possibility of stasis, at the same time bringing to the field fresh rich blood probably loaded with anti-bodies created by the administration of Phylacogen. The employment of argyrol solution is also advisable when there is superficial inflammation, as this doubtless destroys the infection that is so superficial as to be beyond reach of the blood but nevertheless capable of constantly reinfecting the deeper tissues. Other classical measures in the treatment of ocular diseases should be employed as indicated. In this way the phylacogens are allowed to exert their full effect and I have found that excellent results are as a rule prompt in appearing, provided

the etiological factor is discovered and the proper Phylacogen administered.

A striking feature of many of my iritis cases in which synechiae had formed has been the ease with which atropine dilates the iris after one or more doses of Phylacogen, when previously the drug had little effect. This fact seems to indicate that the adhesions are made less tenacious when the localized infection has been vigorously attacked by the antibodies in the blood.

The disappearance of the dense capsule after cataract extraction, rendering a needleing unnecessary, in cases treated with Phylacogen, is likewise rather surprising but quite constant. An example of this is mentioned in the accompanying case-reports, and at the same time indicates the value of this treatment in post-operative iritis, which is an exceedingly serious complication so far as the integrity and function of the eye is concerned.

The following reports indicate what may be expected from Phylacogen therapy in different diseases of the eye, and give in more or less detail treatment that I have found exceptionally successful in a rather extensive series of cases.

Case 1. Mrs. M. Age 40.

Diagnosis: Double Iritis.

Mr. M. came to me after two weeks treatment at the hands of his lodge physician. Both irides were bound down, with extreme redness and pain. Atropine had not been used as he had been treated for "pink eyes." I used atropine; the pupils did their best to dilate and the pain was almost unbearable. I used leeches and weakened the atropine solution as the pain was so severe after its use. On the fourth day I persuaded the patient to allow me to use Phylacogen. I could get no history of either true rheumatism or gonorrhea, but directed his physician to give Rheumatism Phylacogen in 5 Cc. doses every other day. The pain disappeared after the third dose and the eyes improved steadily from that time. After five more 5 Cc. doses, the case cleared up remarkably well. Both irides were in fair condition; there was a little adhesion in both but not enough to impair the sight. I was unable to make a definite diagnosis, but the case cleared up promptly under the Rheumatism Phylacogen. The patient is a very fleshy person, full blooded, and appears to have a tendency toward rheumatism or gout.

I advised a continuance of his treatment to avoid relapse, but the patient refused on account of the local reaction. He made more complaint about the reaction at the site of injection than any other patient I have ever had. He appeared to have quite severe local reactions, but they cleared up after forty-eight hours. He had no systemic reactions, except following

the last dose, at which time he had chills and fever. His physician reported that he had difficulty in keeping his patient from the overuse of alcoholic stimulants at times.

Treatment:—5 Cc. Rheumatism Phylacogen and 1 Cc. Adrenalin Solution (1-3200) were given for three doses, I then gave Rheumatism Phylacogen 10 Cc., for three more doses. Patient had marked reaction after each 10 Cc. dose, severe chills and fever.

Results: Case cleared up entirely, no adhesions of iris, all old adhesions became loosened.

Case 2. Mr. J. E. L. Aged 60.

Diagnosis: Iritis following operation for cataract.

History: Patient had a cataract, had lost one eye by operation some five years ago, probably due to iritis setting-in after a successful cataract operation by some other physician.

I removed the cataract in the remaining eye and sent the patient home at the end of the second week. A few days later he returned with beginning iritis. All physicians who have performed cataract operations know how serious this condition is and how poor the chances are for recovery; those who have never experienced this trouble have not done their share of cataract operations.

Treatment: I at once used the Rheumatism Phylacogen, first giving 5 Cc. every day, then 10 Cc. with Adrenalin every 3rd day; and not only did the iritis subside but the capsule which seemed so thick became transparent. I have since fitted the patient with glasses without doing a needleing. Patient had a severe reaction after each 10 Cc. dose.

Result: Patient has $\frac{2}{3}$ normal vision and a good sized pupil.

Case 3. Mrs. M.

Diagnosis: Iritis, following operation for cataract.

History: Mrs. M. has only one eye; that eye had cataract. I operated. Three weeks after operation she developed iritis, a serious condition, especially with a dense capsule. This is my second case with a similar history, and I decided to try Rheumatism Phylacogen in her case.

Treatment: I gave 5 Cc. every other day for the first week. I then used it in 10 Cc. doses. The reaction was very severe following the second 10 Cc. dose, so severe in fact that the patient would not allow me to use any more. The pain had ceased, however, and I am glad to say the pupil, while not what I wished it to be, is large enough to allow for refraction. And, strangest of all, the capsule thinned out so that a needleing was not necessary. This may of course have been secretion or cortex, but we all know how we dread to see that tough capsule form, and anything that in any way lessens the difficulty is surely welcome. As I have said this is only my second

case of this kind, but I am going to watch the effect in my future cases. If this result should prove constant, it might be advisable to give Phylacogen before operation in suspected cases of rheumatism and in cases that give a gonorrheal history. It has surely stopped the advance of the iritis in these two cases and that was what was desired.

Patient had been treated for months for syphilitic iritis, without any lasting benefit.

I confirmed the diagnosis, but was not satisfied with the history of the case and the reported treatment, mercury, etc.; hence, I prescribed mercury hypodermically. The result from this was apparently good; that is the pain lessened, but the iris adhesions would not give way, and she came back three times with a recurrence of all symptoms. I had her physician try the Rheumatism Phylacogen, and for a time it seemed to help her, but her symptoms returned. I then advised a liberal dose of the Mixed Infection Phylacogen and was surprised to see the remarkable effect in a week. Her physician reported that he used 5 Cc. Mixed Infection Phylacogen every day, with little reaction. The case has cleared up entirely; the adhesions have not entirely disappeared but are much improved and so far there has been no signs of a relapse. This case was treated in Sept. 1912.

I have had similar results since, that is in cases in which I was almost sure that the primary cause of the trouble was syphilis; but the inflammation of the iris yielded readily when I used Mixed Infection Phylacogen. Another interesting feature is that in cases that seem a little slow in getting results from the Phylacogens, very marked improvement follows immediately when a reaction occurs, (chill, nervous shaking, fever and sometimes shooting pains).

Case 5. Mr. A. E., aged 38, clerk in railroad office.

Diagnosis: Rheumatic iritis.

History: Patient gave history of semi-annual attacks of apparent iritis; no certain diagnosis could be made in the past; and I found it exceedingly hard to give a definite diagnosis. The attacks began as a slight conjunctivitis, which later developed into a very severe attack of iritis; the iris became adhesive and the entire surroundings gave the appearance of a deep cellulitis.

Treatment: I instructed his physician to give 5 Cc. Rheumatism Phylacogen daily for three doses, and then 10 Cc. every three or four days. The patient showed improvement but threatened relapse when we tried to discontinue the Phylacogen. He had very severe reactions after each dose, was obliged to go to bed several times; but after fifteen doses he was entirely cured. He was back to work in a week, but the

eye was not really cured until after his fifteenth dose. Atropine was used to keep the pupil open.

Results: Patient is entirely cured, and has passed two of his "iritis seasons" as he calls them.

Case 6. Master B., aged 11.

Case of corneal ulcers, following an attack of measles. Patient also had an infected ear, an infected nose, and a sore on his finger that would not heal. He would not eat, was restless at night, and had swollen glands in the neck. I used atropine in both eyes, advised hot applications, and gave 3 Cc. Mixed Infection Phylacogen. Improvement was very noticeable after the third injection. I then gave a 5 Cc. dose but the boy developed a temperature of 101, and I suspended the Phylacogen until the temperature became normal. I then gave it in 2 Cc. doses and the child steadily improved; the ulcers of the cornea cleared, the nose and the finger became entirely well. The enlarged glands, while not entirely normal in size, are hardly larger than a pea. His mother says the boy eats, sleeps, and acts better in every way. I have three other cases similar to this one, being treated by the family physician, with the same treatment. It has done so well in these cases that I wonder if it would not be beneficial in the treatment of measles. I believe it would be worthy of trial.

Case 7. Mr. Ed. B., aged 50.

Mr. B.'s case was treated at the dispensary for two weeks before coming under my care. He suffered all the symptoms of iritis, very severe pain, etc. One eye was turned inward and upward and had been defective since boyhood. It appeared to be a case of sympathetic trouble but there was no history of accident. Atropine and dionin had been employed. I used leeches, gave sodium salicylate, etc. After the second day I gave 5 Cc. Rheumatism Phylacogen and repeated it on the third day. I did not get the usual good results; so on the fifth day decided that I would give Mixed Infection Phylacogen, as the patient remembered that his trouble began shortly after caring for a horse that had skin trouble. I reasoned that the condition may have been caused by an infection of the conjunctiva, which later involved the ciliary region, as the eyes were very tender when pressure was exerted over this area. I noticed very marked improvement before the third dose of 5 Cc. Mixed Infection Phylacogen, and advised ice applications, argyrol three times a day and atropine. The patient had marked reactions in the form of chills after each injection of Phylacogen. After the fourth dose he felt so much better that he would not permit the use of any more Phylacogen. The case then progressed more slowly, but both eyes finally cleared up perfectly. I believe that this iritis was caused by an infection, and had progressed to an irido-cyclitis. The Mixed Infection

Phylacogen should certainly be credited with its speedy cure.

Case 8. Mrs. V. B., age 40.

I was called by Dr. N. to see a case of double gonorrheal iritis with purulent conjunctivitis, the patient also had a gonorrheal urethritis. I ordered her sent to the hospital, ice bags applied to the eyes, atropine instilled, with 50% argyrol solution alternating every hour night and day.

I also ordered 10 Cc. Gonorrhea Phylacogen given every other day regardless of the very severe reaction she showed after each dose. On the fourth day the swelling of the lids subsided to a very marked degree, the pus was much less, the iris fully dilated. The case steadily improved, and after the 15th dose of Phylacogen I let her go home.

There remained some slight conjunctivitis, with a trace of purulent secretion, for which I had her continue the strong argyrol solution. I also advised another one or two doses of Phylacogen. The patient was to report any signs of relapse. This case was treated in December 1912 and I have not seen or heard from her since. If there had been any sign of a return of the disease her physician would without doubt have notified me.

The case is quite remarkable, as gonorrheal pus in the eyes is usually fatal to the cornea, and not only did the eyes clear up but her primary trouble was completely cured.

Case 9. Chas. S. Baby—5 days old.

Diagnosis: Gonorrheal Ophthalmia Neonatorum.

History: The little patient's eyes were so puffed that when an attempt to open the lids was made the pus spurted out. The conjunctiva was swollen so that both eyes protruded. It was impossible to see the cornea. The pus was examined by microscope and found loaded with gonococci; later inquiries verified this as both parents were found to be infected, primary trouble being traced to the father. I cleaned the lids as well as possible and used as a cauterly carbolic acid and nitrate of silver. I then gave 2 Cc. Gonorrhea Phylacogen subcutaneously. The reaction was very severe; the child had severe chills and a temperature of 104.

The third day I again burned the lids and gave 2 Cc. Gonorrhea Phylacogen subcutaneously; the reaction was slight. The infant was being treated at home with argyrol 50% every hour night and day and ice compresses.

On the fourth day I did not think it necessary to burn the lids, as I could see the cornea very easily, and the swelling had subsided. The secretion was very much less and not so thick.

At the end of the eighth day, the patient had improved so much that I stopped the use of ice and employed the argyrol only about four times a day. There was no corneal involve-

ment, and the eyes are now normal in every respect. While I feel that the regular treatment was very essential, I also believe that the Phylacogen was a marked factor in the prompt and complete recovery; certainly in every other similar case I have had to burn the lids more than twice, and the burning I fear has often opened the way for corneal complications. The readiness with which this case responded to treatment, and the stopping of the formation of the pus must be attributed to the Phylacogens.

Case 10. Patient Mr. S. A., aged 30.

This was one of the worst cases of gonorrheal iritis I have ever seen. The patient had acute gonorrhea in a very virulent form; and gave a history of previous attacks many years before. He thought this was a relapse; but this, however, was the first time that his eyes had given him trouble. He was treated by a physician in his home town until both eyes were involved, the irides in both eyes were bound down, painful, and the patient could not bear the slightest light. The conjunctiva of both eyes was deeply injected. After three weeks of home treatment, I saw the case in consultation at the Sisters' Hospital, and ordered atropine, leeches, sodium salicylate, rest in bed in a dark room, etc. Five Cc. doses of the Gonorrhea Phylacogen were given every day until the patient began to get quite severe reactions. The first five doses did not seem to take hold of the case; I stopped the Phylacogen for three days, then gave 10 Cc. at a dose. After the third injection he had a rather severe reaction, but the eyes began to respond to the atropine, and the discharge from the primary lesion began to subside.

This patient was confined to his bed for two weeks, during which time I had given five 5 Cc. doses and three 10 Cc. doses. At the beginning of the third week he was able to open his eyes, could recognize people at the foot of the bed, and wanted to get up. I then gave 5 Cc. doses every third day, his condition improved rapidly, and, at the end of his fourth week, the man went home. I ordered the Phylacogen used about once a week until there would be no danger of relapse either in his eyes or in his primary infection.

Mr. A. has since been to see me and was fitted for glasses. Result is perfect sight, there are slight adhesions of the iris of one eye, but not sufficient to impair vision in the least. The other eye is perfect, with no adhesions at all. His primary gonorrhea has entirely disappeared and his general health is much improved.

A most interesting feature of the case was the disappearance of a cloudy film which seemed to run across from the edges of the iris, this secretion was very marked when I first saw the case.

Stricture of the Urethra.

By HENRY H. MORTON, M. D.

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Organic stricture is a ring of fibrous tissue surrounding the urethra which interferes with its dilatability, later contracting and causing a narrowing of the urethral canal.

Its causes are:

1. Gonorrhea.
2. Traumatism causing a rupture of the urethra.

Clinically two varieties are recognized:

1. Soft or recent, in which the infiltration is recent and the small round cells are not organized.
2. Hard or organized, in which cicatricial changes have taken place.

Forms of strictures are:

1. Linear, which consists of a fine band of fibres.
2. Annular, in which the band is broader and firmer.
3. Tortuous, which is composed of heavy irregular masses of scar tissue causing more or less distortion and narrowing of the canal.

As to number, gonorrheal are usually multiple, while traumatic are usually single at the site of rupture.

The changes behind the stricture are very important, a pouch is formed which retains a drop of urine, which decomposes, irritates the mucous membrane and causes a gleet discharge. Prolonged inflammation leads to ulceration, which if small forms an abscess, opens externally and leads to fistula, or if large to extravasation of urine.

The walls of the bladder hypertrophy and the muscular fibers lose their elasticity which is followed by atony. The urine accumulates, decomposes and sets up a cystitis. Back pressure on the kidneys leads to dilation of the ureters and pelvis of the kidney. Infection follows and pyelitis or pyelonephritis develops and death follows.

The most constant symptoms are:

1. Frequency of urination due to congestion and irritability of posterior urethra. Later due to cystitis. In the later stages the bladder is distended and the overflow keeps dribbling away.
2. Dribbling after urination due to retention of a few drops of urine in the pouch behind the stricture.
3. Distorted and smaller stream.

4. Gleet discharge from meatus and shreds in urine.
5. Retention of urine due to congestion and swelling of mucous membrane following exposure to cold, alcohol, or sexual indulgence.
6. Pain in urethra is an inconstant symptom.
7. Impotence with feeble erection or premature ejaculation due to irritable posterior urethra.

Diagnosis is made by feeling irregularities in canal with flexible bulbous bougie. Meatotomy should be done if meatus is small so a fair-sized bougie may be used.

A Leper Discharged From the Mercedes Asylum After Six Years Incarceration. Elias Rojas, *Gaceta Medica* of Costa Rica, Jan. 15, 1915.

This case furnishes a bone of contention, with the pathologists arrayed on one side and the physicians in general practice on the other. Dr. Rojas originally made the diagnosis of anaesthetic leprosy, found the bacillus of Hansen in the nasal secretions and sent the patient to the hospital. There he attended him for six years, at which time the laboratory men stepped in and, their experiments proving negative, declared that the man was not a leper. The patient was then discharged.

Dr. Rojas states that the laboratory is a great assistance to the physician when the results are positive but loses its value when negative results are obtained. That the physician should rely primarily on the visible symptoms, palpable and positive which the patient presents for his observation. That in medical science no number of negative signs can ever prevail against positive signs. He calls attention to the two common forms of the disease: tubercular and anaesthetic—the former active, exhibiting, nearly always, the bacillus and giving a positive Wassermann—the latter seldom revealing the bacillus and furnishing a negative Wassermann. He further calls attention to the fact that the bacillus of Hansen may disappear from a given case after causing wide-spread lesions. He concludes that the release of this patient is most unfortunate, the evil result of which cannot be calculated. That it may have the further effect of bringing about the discharge of other cases of anaesthetic leprosy in which the bacillus of Hansen is not present, is to be deplored.—W. W. Q.

Oesophageal Stenosis Due to Typhoid. II. Horace Grant of Louisville, *Pediatrics*, June, reports a case in a boy of 13 seen two months after the disease, and an earlier case not described in detail but recovering after dilatation. The first case was treated by gastrostomy.

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Prevention of Conception

The Critic & Guide reproaches medical journals with timidity in discussing this issue. The Medical Summary explains that the "outside of the pen looks good to most of us." It is a matter of common knowledge, lay as well as medical, that prevention is quite generally practiced. Vital statistics alone show that it is, on the whole, efficiently and safely practiced. All physicians occasionally note instances in which it is practiced both inefficiently and dangerously, and know that its inefficient use is often followed by more or less efficient and more or less dangerous attempts at abortion. Sociologists are taking up the matter from the economic side and many favor it not only as a matter of direct economics but as a eugenic factor in the sense that fewer children are better reared. There are cases in which the prevention of conception is professionally recognized as almost or quite life saving—excluding the obvious and often impractical alternative. There are many more cases in which its temporary use is professionally regarded as favorable to the economics and health of the family and thus, ultimately, of the community. We feel that the time is ripe for an abandonment of the policy of sticking our heads in the sand to blind ourselves to facts. Even the ostrich does not do this. He gets a good look and then braces himself to kick. We believe that when a method, however objectionable ethically, is in common use, it should be freed, so far as possible from danger and that, if used at all, it should be used intelligently. The law should recognize actual conditions, rather than theories. We speak thus, not from immorality but from

a realization of the terrible catastrophes that attend blind ignorance and legendary, half understood, dilutions of fact. But, all sides of the question should be thoroughly discussed before propaganda for repeal of existing laws are in order; they should be discussed much more thoroughly still before propaganda for a professional and lay campaign are instituted. The medical practitioner and the medical editor must await the verdict of the legislator, the legislator must express the well-digested opinion of the economist and sociologist. The latter must consider well the opinion of those qualified to voice ethical, moral and religious opinion.

Semaphor Strain. A New Occupational Condition and Its Effects.

It is a well known fact that occupations, such as those of plastering and painting, in which the arms are much used in a state of abduction, are particularly trying. Partly on account of the relatively slight demand for raising the arms, partly on account of the tension on branches of the brachial plexus, abduction of the upper arms induces a degree of fatigue out of proportion to the actual muscular work done, while holding the arms outstretched for more than a minute or so is a particularly trying exercise. In more or less modified form, it held a place in the ancient system of torture.

A few years ago, street crossing service was regarded as a sinecure for policemen. In the present days of automobile traffic, not only has the name of this service been changed but it has become a work of great responsibility, requiring constant attention, quick judgment, much self control, and involving some degree of danger. By turning the traffic policeman into a human semaphor, he is subjected to the muscular strain mentioned with its attending liabilities to myalgia and even neuritis, to physical and mental fatigue while his station in the center of a street crossing involves an undue degree of exposure to weather which may react locally upon the especially strained tissues or in ordinary general ways. A minor but not entirely negligible factor in the case of a man on a relatively small salary and trained to habits of neatness, is the fact that dust, mud, oil and grazing by vehicles make the expense and trouble of maintaining a uniform greater for the traffic police than for those in any other branch of the service. Thus, with the exception of especially dangerous and difficult details, the traffic service is now considered the hardest duty of the police department.

We, therefore, advocate the adoption of mechanic semaphors

which can be operated by an officer, either stationed at the corner of streets within the curb line or in an elevated box, over the center of the street crossing, whence an even better view can be had. We advocate this change not simply in the interests of the police officers but because mechanic semaphors are more visible—the policeman often being hidden by passing street cars or other vehicles—and because the fatigue and often the actual pain of acting as a human semaphor distracts the attention of the officers from the observation of traffic and renders him incapable of performing his executive duties with the instantaneous promptness and disinterested judgment so much needed.

General principles of efficiency are so well understood that, in no private business, would a man be required to do the work which could be so much better performed by a mechanic device nor would any intelligent manager of a private business require tact, courtesy, alertness and executive ability in an emergency and then hamper the discharge of duty in such a position by imposing unnecessary physical strain, pain and fatigue.

Editorial Prudence.—Medical Economics.

One of our contemporaries expresses the belief that if it were not for the demand for hygienists and sanitarians, there would be no room for physicians, as their occupation—that of treating diseases—will be practically gone. The slump in medical students would cause 100 colleges to close. For some months, we have been at work collecting statistics as to the number of official positions open to physicians and paying living salaries. It has been surprisingly difficult to secure such statistics. At the risk of being imprudent ourselves, we may say that the total number of physicians employed by all branches of the government on living salaries is probably about sufficient to give employment to the graduates of one year. About 2% of such positions would naturally become vacant annually. There are probably about as many more semi-official positions available. Last year, we counted a total of 101 medical colleges in the U. S., giving degrees. Now, granting that there are too many physicians, and that prophylaxis and hygiene have diminished disease, quite a number of our acquaintances admit that they are still fairly busy with practice. There is no immediate prospect of the elimination of disease and accidents or of reproduction. Physicians will be needed in moderate numbers for at least another decade and even the hygienic and sanitary work mentioned will give places for the graduates of four average schools. We think, therefore, that not more than 97 medical schools will have to close their doors in the near future.

The Duty of the Organization to the Physician.

The converse duty of the physician to affiliate himself with professional organizations may be taken for granted. In fact, such affiliation is not merely a duty but a matter of self-interest except in the very narrow sense, that a very narrow-minded man may be correct in assuming that he will not be able to get anything out of professional associations that he can turn into dollars and cents. The normal individual, however, very frankly recognizes that he learns things at medical societies which both increase his earning power and save him from errors in practice and in conforming to legal restrictions that would be costly.

But, occasionally, it is well to change the point of view and, at present, we want to emphasize the duty of the organization to the man. This point of view is useful as well as philanthropic for a concrete example of service by the society to the individual physician is the best possible argument in winning reluctant physicians into the fold.

Some time ago, we noted a court decision by which a society was compelled to assume the defense of one of its members. We do not know the exact circumstances. Possibly the physician was unpopular; perhaps there was a question as to the merits of the case; the main fact was that the society had tried to squirm out of a duty owed to every member, on a technical point of date and that its attempt was unsuccessful. We imagine that that society does not have anything like 100% of the membership which it logically should have. The anti-narcotic laws are bound to result in many indictments or technicalities. In many other ways, physicians, either entirely without blame or under extenuating circumstances or, at least with the presumption of innocence till proved guilty which is part of the foundation of democracy, are liable to require legal assistance or, at least, the moral support and friendship of their associates. We believe that it is not only the duty but the self-interest of the profession generally, as organized, to support any member who is in trouble. Insurance of legal support cannot very well be extended to cases in which the private business and private conduct of a physician come into question nor can it be expected that warm comradeship will be experienced by the man who is naturally crooked or who has been remiss in his own duties toward his fellows. But no technicality and no lack of influence should stand in the way of a full discharge of the debt of responsibility.

We have also urged that steps should be taken to care for disabled, sick and age-worn members of the profession, to keep them from want and to show the people that the medical profession is not lacking in fraternal spirit. Anything approach-

ing adequate fraternal insurance will involve individual sacrifice and will present many difficult problems in organization and administration. Considerable time will be required to carry out any such scheme. Meantime, we believe that, without direct expense, much may be done that will not only be a comfort to the unfortunate but that will strengthen the profession both in its general influence and in its organization. Some apparently unrelated facts may be very pertinent to this phase of the subject. For example, the best statistics of professional mortality, those of the Journal of the A. M. A., show a death rate of only a little over 14:1000 for the medical profession. Often, in noting the death of an old physician, we find no record of him in medical directories. Often, we learn casually that a business or social acquaintance is a medical graduate. All these facts show that a great many physicians drift from their professional affiliations soon after they retire from active practice, either on account of age or from engaging in other lines of work. Very few, under such circumstances, feel that it is worth while to maintain their dues or to take an active part in professional life, yet we feel that it is both a duty and for the interest of organized medicine to maintain a hold on such men, unless, of course, they have drifted into lines of commercial work directly at variance with the ethical standards of the profession.

Consider, too, the case of the struggling physician who has no notion of abandoning practice permanently but who has been incapacitated for a long period by an accident or by sickness, or who has had to change his residence and endure for a second time and with greater family obligations, the ordeal of gaining a practice. His removal may have been due to failure of health of himself or a member of his family, requiring a different climate; to business reasons, even to mere restlessness and impatience. At any rate, even the comparatively small item of annual dues becomes a relatively large expense and one that is not so imperative as the demand for food, clothing and lodging. In all other respects, he is even more in need of professional affiliation while, save for his inability to contribute financially to the society, he is just as valuable an asset to it as if he were in full practice. Suppose that he fails to get on his feet again, is his opinion of professional organization or that of any disinterested layman who happens to know of the case likely to be favorable? Suppose that he regains his professional footing in a purely commercial sense, is he likely to become a hearty, active, influential supporter of professional organization? Is there not rather danger that he will develop into almost the greatest offset that organized medicine has to deal with—the successful, competent quack?

Some years ago, we were much impressed with a contrast

between professional circumstances attending the death of two physicians. Both were, at corresponding ages, good types of average success, professional activity and uprightness of life. One died after a brief illness. A special meeting of the county society was called, appropriate memorials were presented and the society attended his funeral in a body. The other died after several years of invalidism and the profession ignored his departure for he had forfeited his membership for the very simple reason of the greater practical demand for food, clothing and lodging previously mentioned. Save for the naturally greater interest in the sudden death of one in active life, the popular press and the laity paid the same respect to one as to the other. Without any special personal acquaintance with either, we admit frankly that we can understand how the multiplication of such instances can exert a very marked influence in determining the attitude of young and impressionable physicians toward professional organization in general and even with regard to adherence to ethical professional standards or those of the medical Ishmaelite.

It would cost little beyond the postage on announcements of meetings to provide for the retention on the rolls of medical societies of superannuated and retired physicians and for the temporary transference—confidential if desired—of those for the time being in straightened circumstances, to associate membership. There would be a slight loss of dues from those who, in spite of retirement or misfortune, would continue active membership. On the other hand, professional solidarity would be increased. Organized medicine would stand higher in the community and in the profession. Fewer licentiates would develop into unethical practitioners and there would be less difficulty in bringing individuals into organizations. The numeric increase of membership alone would more than compensate for any conceivable expense or loss.

BOOK REVIEWS

Books mentioned may be inspected at and ordered through this office. So far as possible, books received in any month will be reviewed in the issue of the second month following.

International Medical Annual. Edited by a staff of British and American physicians and surgeons. Published by Wm. Wood & Co., N. Y., 760 pages, 71 full page plates, \$4.

A glossary of new words begins the volume which is arranged alphabetically by comprehensive titles. It is also

indexed in detail. This is the 33d year of this cyclopaedia of current medical literature. The topics are often illustrated and are rather full discussions so that the work is not merely an index but a practical guide for the physician.

Annual Report of the Health Officer of the Port of New York (Joseph J. O'Connell) to the legislature, for the year ending, September 30, 1914.

This is an interesting report, showing the activities of this branch of the health work of the state and including much matter of scientific interest.

Curschmann's Text Book of Nervous Diseases. Authorized English version by Charles W. Burr, B. S., M. D., Philadelphia. Published by P. Blakiston's Son & Co., Philadelphia. 2 volumes, 1132 pages, 247 illustrations, \$12.

This work is written by the following: Aschaffenberg, Curschmann, Kinkelnburg, Gaupp, Hirsch, Jamin, Ibrahim. Curschmann, Finkelnburg, Liepmann, Mueller, Schlesinger, Schoenborn, Starck, Steinert, and the editor. It comprises the following general sections: General Diagnostics, Peripheral Nerves, Spinal Cord, Myopathies, Brain, Organic Nervous Diseases of Childhood, Hyperkinetic Diseases, Psychasthenic States, Sympathetic Nervous System, Vaso-Motor and Trophic Diseases, Intoxications, Operative Treatment, Neurasthenia, Psyasthenia, Hysteria and Borderland Mental States. The monographic method insures personal responsibility and attention to details while the whole has been systematically arranged. It is scarcely necessary to say that the work is comprehensive, and of the highest order.

The Cancer Problem. Wm. Seaman Bainbridge, A. M., Sc. D., M. D., New York. Published by the Macmillan Co., N. Y., 534 pages, illustrated.

This work is a philosophic study of the subject on broad lines, of interest sociologically as well as medically, it does not aim to describe technic, either of diagnosis or treatment, but it cannot be described as non-technical. All sorts of information bearing on the subject has been collated, with the idea of having a substantial foundation of fact and practical information. For instance, in discussing history, the author alludes briefly to the antiquity of cancer, omits the legendary and superstitious views of cancer, except for an occasional allusion in passing, but summarizes the principal research institutions of the world of which the N. Y. State Institution

at Buffalo was the pioneer. Botanic and Zoologic distribution of tumors is reviewed, the general conclusion being that any multicellular animal organism may develop benign and malignant neoplasms. Neither strictly racial immunity nor, conversely any special addiction due to climate, soil, diet and habits of life has been demonstrated. Almost every conceivable practical question as to the nature and ultimate control of cancer is answered in this book, so far as established fact or disproved theory is concerned. That the answer is often incomplete or a confession of ignorance is to be regretted but the ultimate satisfactory answer is hastened by a frank knowledge of where we stand.

1914 Collected Papers of the Mayo Clinic, Rochester, Minn. Octavo of 814 pages, 349 illustrations. Philadelphia and London: W. B. Saunders Company, 1915. Cloth \$5.50 net; Half Morocco \$7.00 net.

This is the sixth annual volume. Covering a variety of topics, it is not susceptible of review in detail but several articles dealing with the etiology and pathogenesis of cancer and the studies of the thyroid, are particularly interesting, from a general medical standpoint. The description of a visit to European hospitals, bibliographic tables and suggestions to medical writers are in marked contrast to the technical monographs and perhaps equally valuable.

Alveolodental Pyorrhea. By Charles C. Bass, M. D., Professor of Experimental Medicine and Foster M. Johns, M. D., Instructor in the Laboratories of Clinical Medicine at the Tulane University Medical College, New Orleans, La. Octavo volume of 167 pages, with 42 illustrations. Philadelphia and London: W. B. Saunders Company, 1915. Cloth, \$2.50 net.

This is a comprehensive treatise on an old subject from the new standpoint of amoebic infection. Without in any way opposing this theory, we think that a word of caution is in order. It is scarcely possible that all of the observations on the relation of chemic processes to pyorrhoea are without foundation in fact nor is it definitely established that they can all be explained as direct results of amoebic action. Some regard the endamoeba pyorrhoealis as a harmless parasite and even without accepting this view, the practical importance of various bacteria, saprophytic and pyogenic, should not be set aside without considerable investigation, in the laboratory and the clinic. But, whatever be the results of such experience, the present work is timely and valuable.

The Treatment of Fractures: With Notes Upon a Few Common Dislocations. By Charles L. Scudder, M. D., Surgeon to the Massachusetts General Hospital; Associate in Surgery at the Harvard Medical School. Eighth Edition, Revised and enlarged. Octavo volume of 734 pages, with 1057 original illustrations. Philadelphia and London: W. B. Saunders Company, 1915. Polished Buckram, \$6.00 net; Half Morocco, \$7.50 net.

While the monograph on a phase of medical science developed by modern research has become a type of medical literature of the last quarter of a century the equal importance of systematic treatises on familiar subjects, brought up to date in the light of the same scientific methods plus accrued experience, must not be forgotten. The first copyright on Scudder's work was granted in 1900. There has been much opportunity for advance in fifteen years. What impresses one most forcibly in contrasting this edition with the sections on fractures in the older surgeries, is the degree to which the treatment of fractures has progressed beyond mere bone setting. Not only has the direct attempt to secure fragments of bone in proper place and to stimulate union attained a position of practical utility, far beyond the mere external support of a fractured bone left for repair to purely natural forces, but pathologic fractures have assumed a larger and more hopeful field and the attention to nervous and other lesions incidental to fracture, is greater than formerly. Codman's chapter on the Roentgen rays adds much to the value of the work, his criticism of mistakes in interpretation of skiagraphs being especially worth reading.

Diarrheal, Inflammatory, Obstructive, and Parasitic Diseases of the Gastro-Intestinal Tract. By Samuel G. Gant, M. D., LL. D., Professor of Diseases of the Colon, Sigmoid Flexure, Rectum, and Anus at the New York Post-Graduate Medical School and Hospital. Octavo of 604 pages, 181 illustrations. Philadelphia and London: W. B. Saunders Company, 1915. Cloth \$6.00 net; Half Morocco \$7.50 net.

Many of our readers have had the pleasure of hearing Gant speak on certain phases of his work in intestinal diseases. He works, speaks and writes with an animation usually found only in those devoted to a hobby. He subjects theoretic studies to the rigorous test of practical experience. He is bold in his methods of attacking a problem but conservative in selecting the cases to which radical measures are applicable. Diarrhoea can no longer be considered as a disease nor as a symptomatic entity. It is viewed—quite literally—from

the standpoint of symptomatology and physical examinations of the ordinary external type, through the speculum, through the laboratory, and even through an incision in the abdominal wall. It is not so much a symptom as an inevitable result of neurotic disturbances, of inflammatory processes, of specific infections and parasitic involvement, of disturbances of physiologic processes more or less intrinsic, of toxic conditions, extrinsic and intrinsic. Its treatment may best be hygienic or medical, even medicinal in the narrow sense, or local so far as the bowel may be reached from without through the anus or some preternatural opening, or surgical in a very direct sense. The author's views are positive but not revolutionary. Originality marks every page of the book, but it is not the originality that neglects general knowledge nor that emphasizes mere personal bias. The work is both scientific and practical. It illuminates a subject about which there is much ignorance and a tendency to superficial consideration. If we could imagine a practitioner to whom the subject would have no direct interest, the book would still be worth reading simply as suggestive of how quite different medical problems should be handled.

Progressive Medicine, A Quarterly Digest. June, 1915, issue. Edited by Hobart A. Hare and Leighton F. Appleton of Philadelphia. Published by Lea & Febiger. \$6 per annum of four volumes.

The present volume contains 445 pages and 100 illustrations. The subjects discussed are : Hernia, Wm. B. Coley; Surgery of the Abdomen, John C. A. Gerster; Gynaecology, John G. Clark; Diseases of Blood, Ductless Glands, etc., Alfred Stengel; Ophthalmology, Edward Jackson. Pyr's method of applying a powerful magnet after ingestion or injection of iron suspensions; Neisser and Brauning's observations on haemokonia, applied by Jeannin and Levant to the test of hepatic function by noting lipaemia microscopically; the review of the pineal body; impress one as particularly interesting and novel, though not more valuable than the careful studies of more familiar topics.

What Every Mother Should Know. Charles Gilmore Kerley, N. Y. Published by Paul B. Hoeber, N. Y. 107 pages, including blanks for memoranda, illustrated, paper covers, 35 cents.

We are disappointed in this book. From its title, we anticipated a lot of popularized medical science and sociology that would confuse the average mother and endanger her off-

spring. On the contrary, it is a brief, sensible treatise on feeding, routine care and unofficial first aid. Its title is correct and we heartily recommend it.

Outlines of Internal Medicine. For the Use of Nurses. By Clifford Bailey Farr, A. M., M. D., Instructor in Medicine, University of Pennsylvania; Assistant Visiting Physician, Philadelphia General Hospital; Pathologist to the Presbyterian Hospital. 12mo., 408 pages, illustrated with 71 engravings and 5 plates. Cloth \$2.00 net; Lea & Febiger, Publishers, Philadelphia and New York, 1915.

This book, like others of the series, aims to give the nurse a sufficiently broad knowledge of what lies behind her direct duties to the sick. This purpose is sometimes attacked on account of the well-known danger of a little knowledge—and however thoroughly one studies any subject, his knowledge is always far short of the ultimate total—and particularly because it may tempt nurses to that assumption of medical responsibilities which is so clearly portrayed and usually commended in works of fiction. But this danger is balanced by that of ignorant automatism and it seems to us that the author has, all things considered, chosen a happy mean.

War Surgery. Edmond Delorme, Medical Instructor General of the French Army. Translated by D. de Meric, Surgeon to the French Hospital, London, published by Paul B. Hoeber, N. Y. 248 pages, illustrated. \$1.50.

This is a small compend, exceedingly timely for Europe, happily not for America.

Occupational Affections of the Skin. R. Prosser White, London. Published by Paul B. Hoeber, N. Y. 165 pages, illustrated, \$2.

This work takes up the subject of dermatology from an unusual standpoint. It is a very thorough discussion of the chemie irritants, exposures to cold, immersion of parts and to micro-organisms of various trades. The chapter on poisonous plants is especially interesting. Throughout the work and in a final index, abundant reference to authorities is given. There is so much of new information and of that collated with difficulty from ordinary works on dermatology, that this book should interest not only dermatologists but all physicians.

TOPICS OF PUBLIC INTEREST.

(Relatively) Safe and Sane Fourth. The Chicago Tribune has collected statistics showing that 9 persons were killed and 177 injured this year, as compared with 9 killed and 601 injured in 1914. Fire losses were \$66,550 as compared with \$76,035 in 1914.

The Medical Library Association, 1211 Cathedral St., Baltimore, aims to supply medical books and periodicals as needed by subscribing libraries and individuals. 1347 books and 2023 journals and pamphlets were distributed in the six months ending June 30. 945 books and 3142 journals were donated.

War Relief. The Rockefeller Foundation has issued a report of its work in Belgium, France, Serbia and Poland. \$1,000,000 has been expended in Belgium beside \$90,000 among refugees in Holland. \$20,000 a year has been appropriated for stipends to scientific professors of Belgian universities for whom laboratory facilities have been provided in England. Except for equipping a hospital for Dr. Carrel, that research work might be done in addition to actual care of patients, it was found that no assistance was needed in France. Typhus and the threat of typhoid and cholera are acute in Serbia and about \$125,000 has been expended, \$85,000 contributed by the Foundation, the remainder by the Red Cross. \$10,000 a month has been guaranteed by the Foundation for relief work in Poland. Practical results for humanity like these, reconcile us to having to pay a few cents a gallon for kerosene beyond the possible low price. And, as we have pointed out before, it is worth while to compare the rates charged for water with those for petroleum products. Recently, we have seen a spring water, possessing no special qualities, listed at 40 cents a half gallon. Of course, the suppression of numerous small businesses is quite another problem.

Buffalo Tuberculosis Hospital. The total of the low bids submitted for the proposed hospital on the West farm site, is \$477,907, well within the limit fixed.

Results of Narcotic Laws. The possible immediate tragedies due to these laws are exemplified by the suicide of a man aged 28, after killing his mother aged 60, in Buffalo June 29. 11 similar deaths were recently reported for Chicago. The local health authorities have asked for an immediate appropriation of \$2,000 to provide hospital care for victims of drug habits. It is not necessary that a single death should result from the

inforcement of these laws although inevitable that many, finding it impossible to secure drugs as they have been in the habit of doing, will end their lives.

A curious side issue of these laws, is the indictment of a physician, not for direct violation of the law, but for harboring prostitutes and persons who are a nuisance by reason of drug habits, in his office. It has been considered one of the fundamental ethical principles of the medical profession that relief was to be afforded in case of need, without regard to political, religious, personal or social objection. However much we may desire nice, respectable persons for a clientele, it would be a rejection of humanitarian principles to imply in any way that the most unfortunate and degraded human being may not freely seek professional advice and aid.

Another important phase of the narcotic laws, both in their immediate and their ultimate effects, is legislation by ruling. For example, it has been ruled that "personal administration" does not cover the attendance on a patient at the physician's office, although it does at the patient's residence. We are not informed just where "personal" ceases to mean personal, whether, for example, attendance on a person taken sick at a hotel or on a street car, or injured on the street is personal or not. More recently, it has been ruled that a proprietary mixture is a preparation and a prescription not. Such rulings remind one of the old story of two travelers, one with a cat and the other with a bat, on a railway train in England, the regulations of the company specifying only the payment of a special fare for dogs. After consultation, the conductor issued the edict that cats were dogs and paid a fare, that bats were insects and went free. There used to be a fiction among political economists that the functions of a democratic government were strictly divided among executive, legislative and judicial authorities. The most learned judges have always shown a reluctance to tamper with laws as formulated but we now have bureau clerks making their own laws, contrary to common sense and the dictionary.

High School Graduates. The four high schools of Buffalo graduated 655 pupils this year. Persons of the average of high school graduates comprise 1.96% of the total population, on the average—about 8950 for Buffalo. Thus about one in thirteen of the rising generation receives a full high school education, approximately three times as many as in 1880.

A National Medical Licensing Board. The theoretic desirability of national medical licensure has been considered impracticable on account of the peculiar conflict of state and national authority in our government. In recent years it has

been shown that "the Constitution stands for little among friends" in a salutary sense as well as that of the politician. Dr. Rodman in his address before the A. M. A. formally advocates a national board comprised of the Surgeon Generals of the Army, Navy and Public Health Service, with representatives from the Confederation of State Boards of Examiners, the Association of American Medical Colleges, the American College of Surgeons and the A. M. A. Even in the lack of constitutional authority, the states could and probably would, under sufficient influence, pass laws accepting the certificate of such a board.

The Mayo Foundation. After considerable discussion and some modification of the original plan, the regents of the University of Minnesota—which is a real institution of learning and not such an organization of education as in N. Y.—have accepted the generous gift of the Drs. Mayo. The scientific work will be carried on in a building to be erected in Rochester, in which the University will have the right to space for teaching purposes. Clinical privileges will also be granted to students. After Sept. 1, 1921, the principal of the endowment, amounting to \$1,500,000 and some accumulated interest, beyond current expenses, will become the property of the University absolutely.

Addition to Perrysburg Tuberculosis Hospital. Contracts have been let for the erection of pavilions for the J. N. Adam Memorial Hospital, to increase the accommodations from 160 to about 300. By crowding, 203 patients are now cared for. It is expected that the additional pavilions will be ready before Sept. 1.

The Tubercular Death Rate has decreased from 326: 100,000 population in 1880 to 146.6 in 1913, according to George M. Cooper of Washington.

The Speeding Ambulance. A Buffalo ambulance, on a call to a moderately severe accident, has recently killed three persons. A few days later another collision occurred without fatalities. It is now proposed to withdraw the exemption from traffic regulations. In our experience, the difference between the maximum speed at which a vehicle can travel, providing that nothing gets in its way, or that a moderate attempt is made not to strike an obstacle dangerous to the vehicle itself, and the speed, varying with circumstances, but always insuring reasonable control, is about one minute per mile. Allowing five miles per round trip, for the average city ambulance call, and granting that the surgeon and instruments are provided

for operation immediately on the arrival of the patient, it will still take some time before the five minutes extra time per case, will have saved three lives. A few months ago, we published a similar report, from Boston, with some comments which were intended to have a practical application.

Municipal Reporting of Drug Habitues. The Health Dept. of Buffalo has requested an ordinance requiring physicians to report users of drugs.

Narcotic Laws. Pursuant to request, I hereby, to the best of my ability, give for the benefit of physicians, a statement of what in my opinion is the law of New York State and United States re coca leaves and its derivatives, opium and chloral and their derivatives:

Coca Leaves, Etc., New York State Law.—(b) (c). Physicians shall upon delivery of cocaine or its salts, etc., make a record in a book kept for that purpose, of all purchases of the same, stating the date of purchase, the quantity purchased, the name and form in which it is purchased, the name and address of the seller, the name of the person by whom the purchase is made, the name of the person by whom the entry is made, a description of the package or container in which the substance was purchased, and a statement that such purchase is sold and purchased in the original package; that the package was sealed, that the seals thereon were undamaged and unbroken, and that the labels were attached thereto, said labels distinctly displayed the name, and quantity of cocaine or its salts, alpha or beta eucaine, or their salts, and the word "poison" with the name and place of business of the seller, all printed in red ink, and that said labels were not in any manner defaced or damaged, a statement showing how delivery was made, whether personally (or by mail, which Postal laws forbid), express, freight, or messenger, and also an entry shall be made in said book of the particular place in which such substance purchased is to be kept by the purchaser, which place shall not be changed without making a change in the entry of said book opposite the original entry, to be signed by the purchaser. This record and statement must be signed by the purchaser and kept in his regular place of business and shall be open for inspection at all times by proper officers, and be preserved for five years.

A physician may carry for use in his profession such drugs or compounds thereof, providing the amount so personally carried and the amount kept in the place scheduled in his record shall not together exceed a total of one and one-eighth ounces of such drugs.

A physician after **personal** examination of the patient may

prescribe and himself dispense such substance to a patient provided he execute and deliver the certificate required of the dispensing druggist, to wit, a certificate giving name, age and address of person furnishing, of the physician prescribing, date of furnishing and amount of drug.

No physician shall possess more than one and one-eighth ounce of the substance.

If a physician issuing a prescription desires that the use of the substance to be for a longer period than ten days, I should gather he must state that fact in said prescription, as it must be so stated in the certificate.

A physician may prescribe after personal examination any of the said drugs in any amount. There appears to be no limit, but the United States has made a ruling which is set forth hereafter.

A physician shall keep a record in a book kept for that purpose of all alkaloid, cocaine, or their salts, eucaine or its salts or a mixture thereof, disposed of by him, and the difference between the amount so recorded plus the amount in the place designated, and the amount received, shall be evidence of violation of this section, and he shall balance the book with amount on hand at least once in six months.

Chloral and Opium and Its Salts, Alkaloid, Etc. New York State Law Amended April 17, 1915.—A physician may prescribe any of these drugs for use of a patient in any amount, no limit. But see United States ruling.

The prescription must contain substantially the following: The name in full of the physician, his office address, the name, age and address of the person to whom and the date on which such prescription was issued.

Said prescription can only be issued after **physical** examination of the party for the treatment of disease, injury, or deformity. A physician who dispenses these drugs shall at the time of dispensing of the same, place upon the package a label or deliver therewith a **certificate** stating the name and address of the person selling or furnishing same, to wit, himself, the name and address of the physician, himself, date of sale, and the name of the person to whom such sale was made. All orders for the purchase of any of the drugs must be made on special order blanks which used to be furnished by the Health Department, which Health Department now authorizes the use of the United States blanks to be bought in books of ten for ten cents from Collector of Internal Revenue. All physicians shall keep on record the name and address of each person to whom these drugs are dispensed, given away or in any manner delivered and the quantity so dispensed, given or delivered, whether such disposition be in the nature of compounds or

otherwise, and if in the preparation of compounds, the quantity so used in each compound.

Such record to be preserved for two years. No physician shall dispense, sell or give away any of these drugs to any child under the age of sixteen years. Violation a felony.

United States Law in Effect Jan. 15, 1915, re Opium and Coca Leaves, Their Salts or Preparations.—Every physician must register with the Collector of Internal Revenue of the district his name, place of business, and where his business is to be carried on and pay said collector annually a tax of \$1.00 per annum.

Physicians may prescribe, dispense and distribute said drugs to a patient, but must keep a record of all his drugs dispensed, distributed or **prescribed** according to the ruling hereinafter mentioned, showing the kind and the amount dispensed, distributed or prescribed, the date and the name and address of the patient. The only exception is that the physician does not have to keep a record of what is dispensed, distributed or prescribed when he personally visits the patient. This record shall be kept for two years.

The physician shall when giving an order to the seller for any of said drugs, make a duplicate thereof on a form issued in blank and shall preserve such duplicate for two years. All order forms, prescriptions and statements are open to the inspection of the proper authorities charged with the enforcement of any law.

The provisions of this act do not apply to dispensing remedies and preparations containing not more than two grains of opium, or one-fourth grain of morphine, or one-eighth grain of heroin or one grain of codeine, or any sale of them in one fluid ounce or in liniments or ointments for external use.

Resume.—Every physician must obtain these drugs only on a written order made in duplicate on blanks to be bought from the United States Collector of Internal Revenue, which blanks explain themselves.

Every physician should at the time of delivery keep a record in separate books of the purchase of coca and its derivatives and compounds, and of opium and its compounds, and enter in said book the place where the drug is to be kept. New York State Law requires a full statement of the coca delivered, the particulars of which are set forth above.

Every physician shall keep, in a suitable book (United States ruling) for recording, the date when, the kind and the quantity of, and the name and residence of the patient to whom, these drugs are dispensed, distributed or prescribed (except when he visits).

Every physician shall keep a carbon copy or duplicate of every prescription (United States ruling), which he gives of

all these drugs, and a written record in a book of what he dispenses of these drugs, according to the form set forth in the paragraph above.

Every physician shall give to whom ever he dispenses a certificate setting forth the name and address of the physician prescribing, the name and address of the person furnishing, and the name, age and address of the patient and the date and the amount furnished, and it should be signed by said physician and he should keep a duplicate thereof. This is required by the United States Law and the rulings.

Section 6 of the United States Law seems to cover solutions containing small quantities of opium and its salts, and says that the provisions of this Act do not apply to them, but it does not cover coca and its salts, and I would advise that this matter be taken up by those interested with the Collector of Internal Revenues as to what entry is necessary where it is used in very small quantities; for the law of the State of New York does not call for a record of disposition, except of coca once in six months.

None of the laws seem to require a record of the actual administering of the drugs, unless it may be covered by the wording of the United States Law, but in my opinion it would be safe to make a short statement of such drugs, when administered, in order to show an accounting of the drug possessed, which seems to be the main object of the Statute of the United States. I also recommend the observance by physicians of the ruling by United States regarding the keeping of a copy of the prescriptions.

The United States makes the following ruling re prescriptions, which accounts for my placing prescriptions under the same heading as dispensing. It is as follows:

"This office construes the words "dispensed," "distributed," or "prescribed," used in the Act, as synonymous, and that a physician, dentist or veterinarian "dispenses" within the meaning of the law when he writes a prescription calling for any of the narcotic drugs to be filled by a registered dealer." In effect May 11, 1915. This ruling may be ultra vires.

No law limits the amount to be prescribed or dispensed by physicians, yet the United States has ruled as follows, though admitting that the law does not limit the amount to be dispensed or prescribed at one time:

"Where a physician, dentist, or veterinarian prescribing any of the aforesaid drugs in a quantity more than is apparently necessary to meet the immediate needs of a patient in the ordinary case, or where it is for the treatment of an addict or habitue to effect a cure, or for a patient suffering from an incurable or chronic disease, such physician, dentist, or veter-

inarian surgeon should **indicate on the prescription** the purpose for which the unusual quantity of the drug so prescribed is to be used. In cases of treatment of addicts these prescriptions should show the good faith of the physician in the legitimate practice of his profession by a decreasing dosage or reduction of the quantity prescribed from time to time, while, on the other hand, in cases of chronic or incurable diseases such prescriptions might show an ascending dosage or increased quantity."

The violation of these are misdemeanors.

The only felonies are: when a physician fails to give a certificate to the patient, because every person not authorized by law to possess the same is guilty of a misdemeanor if the drug is found in his possession without a certificate; and the dispensing of the drug to a child under 16 years of age.

The authorities have only a right under these laws, if it be constitutional which is a question, to inspect and, when necessary, to verify the records, orders, prescriptions or statements made and see the amount of the drug in stock at the place specified, but they have no right to search the premises or to do any other act beyond those specified without due process of law, i.e., search warrants, etc., and they have no right to remove without warrants, etc., any of the property of the physician, including even the books of record or any drugs.

Under the New York State, in my opinion, no physician can be prosecuted for failure to record prescriptions; but under United States it may be possible to prosecute him for said failure.

It seems to me that it would be wise for the Medical and the Druggists Associations, etc., to make an effort to have either the United States law or the New York State law re these drugs repealed, as the object of both is the same and the operation of them both burdensome to the parties that have to handle the said drugs.

The laws on this subject are so complicated that the above is the best interpretation thereof that I can now give owing to the shortness of time for my consideration thereof.

ALFRED L. HARRISON,

Attorney for Erie County Medical Society.

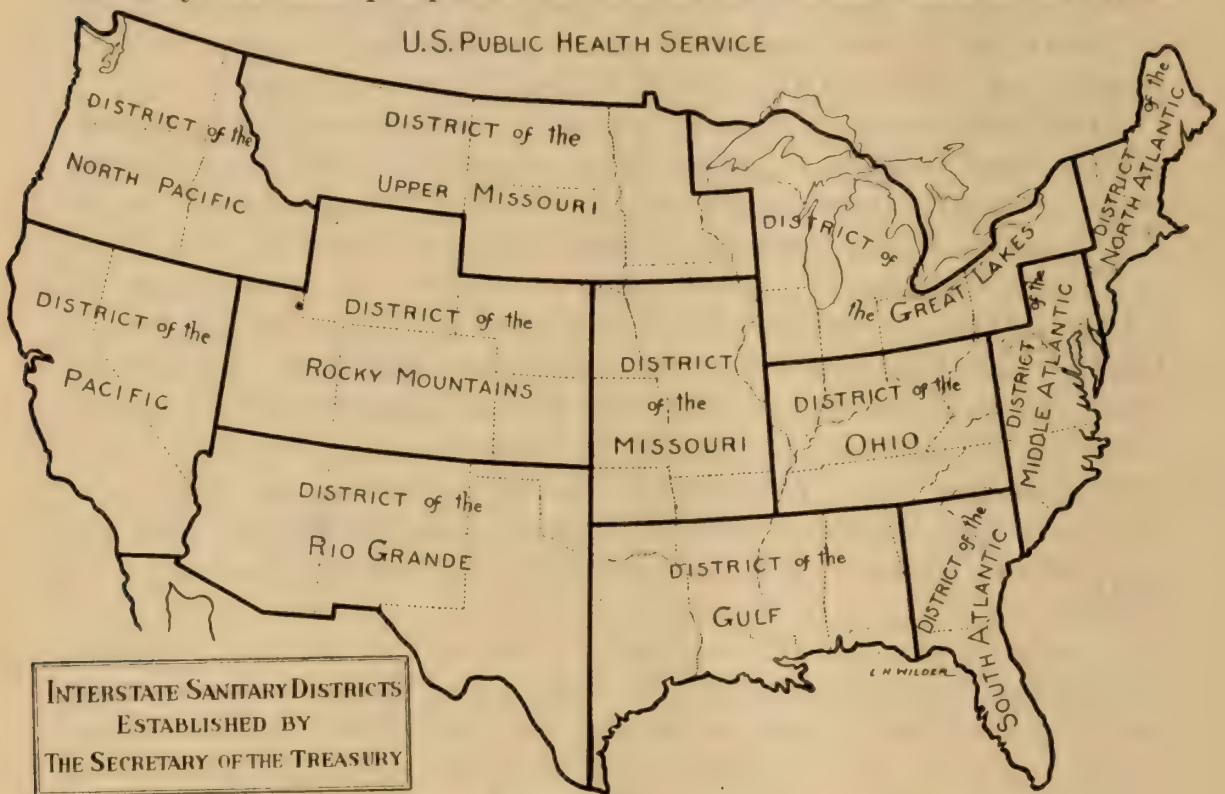
Dated, June 22, 1915.

Dental Dispensary for Rochester. Mr. George Eastman has donated \$300,000 for establishing a free dental dispensary and will contribute \$30,000 a year for five years for maintenance. Private citizens are to contribute \$10,000 a year for the same period. If successful, Mr. Eastman will then endow it with \$750,000 on a permanent basis.

Thefts of Narcotics. One of the developments of the narcotic laws is the theft of drugs by habitues. Dr. Duchscherer of Buffalo, reported the theft of 50 1/4 grain morphine tablets by a man pretending to be a patient awaiting his return.

Increase in Automobile Licenses. The Buffalo office has issued 64,557 licenses up to the middle of July—an increase of 12,410 over the same period of 1914. About 12,700 licenses are for automobiles owned in Buffalo.

Interstate Sanitary Districts. The accompanying map, furnished by the Surgeon-General, shows the division of the country for the purposes of the U. S. Public Health Service.



SOCIETY MEETINGS

Brief reports and announcements of meetings of societies of Western New York, and those of general scope, are requested from Secretaries. Copy should be on hand the fifteenth of the month. Full transactions will be published at cost of composition.

DOCTOR: Is your Society properly represented here? If not, please bring our standing announcement to the attention of the members.

Lake Keuka Medical and Surgical Association, embracing the counties of Allegany, Chemung, Erie, Livingston, Monroe, Onondaga, Ontario, Schuyler, Seneca, Steuben, Tioga, Wayne,

Wyoming and Yates, met at Grove Springs Hotel, Keuka Lake, Thursday and Friday, July 22 and 23. Program—President's address, Ross G. Loop, Elmira; "The Old and New in Public Health," B. R. Wakeman, Hornell, discussion opened by William E. Barron, M. D., Addison; "Innocent and Accidental Syphilis," E. Wood Ruggles, Rochester; "Tetanus," John M. Quirk, Montour Falls; "Obstetric Amnesia," William T. Getman, Buffalo; "Prognosis of Hyperthyroidea," Henry L. Elsner, Syracuse, discussion opened by Martin B. Tinker, Ithaca; "Present Status of Physical Therapeutics," John C. Fisher, Elmira, discussion opened by Floyd S. Crego, Buffalo; "The Surgical Treatment of Ulcer and Cancer of the Stomach, Pylorus and Duodenum: How Efficient is it? A. L. Soresi, New York; "Duodenal Ulcer: A Survey of 100 Operative Cases," John F. Erdman, New York; Discussion of papers of Drs. Soresi and Erdmann opened by A. L. Beahan, Canandaigua; "The Function of the Gall-Bladder," Arthur W. Booth, Elmira, discussion opened by Homer J. Knickerbocker, Geneva; "Backache, its Etiology, Diagnosis and Treatment, Roland O. Meisenbach, Buffalo; "The Diagnosis of Intusseption," Irving M. Snow, Buffalo; "The Treatment of Intusseption," Frederick J. Parmenter, Buffalo; Discussion of papers of Drs. Snow and Parmenter opened by Herbert A. Smith, Buffalo; "Diabetes Melitus: Its Etiology and Treatment, John R. Williams, Rochester; "Glycosuria: Its Relation to Surgery," William I. Dean, Rochester, discussion opened by W. W. Skinner, Geneva; "Some Problems of Heredity," Frank L. Christian, Elmira; "Recent Activities of the State Institute for the Study of Malignant Disease," Harvey R. Gaylord, Buffalo; "Exhibit of Bone and Joint Conditions commonly seen by the General Practitioner," Roland O. Meisenbach, Buffalo.

The American Society for Physicians' Study Travels Contemplates a tour about Sept. 11 from Philadelphia to Baltimore, Old Point Comfort, Richmond, White Sulphur Springs, and Virginia Hot Springs, returning to Philadelphia for the meeting of the Medical Society of the State of Pennsylvania. The total per capita expense will not exceed \$40, and the decision rests with the number of favorable responses. Physicians interested are asked to communicate promptly with Dr. Albert Bernheim, Secretary General, 1225 Spruce Street, Philadelphia.

OUR CONTEMPORARIES.

The Wisconsin Medical Recorder was merged, July 1, with the Physicians' Drug News of Newark, N. J.

PERSONAL.

Announcement of removal, travel, and other matters of interest are requested. Please report errors in the listing of any physician in the State and other directories, that we may co-operate with the State Society in securing a correct list.

Dr. Roger S. Morris of Clinton Springs, has been appointed to the recently established Forchheimer Chair of Internal Medicine at the University of Cincinnati.

Dr. H. Sheridan Baketel, editor of the Medical Times of N. Y., has been appointed chief of the department of Hygiene and Public Health of the Long Island College Hospital.

Dr. George W. Crile of Cleveland, gave a clinic at the Good Shepard Hospital at Syracuse, in June.

Dr. Isaac W. Brewer, recently married to Miss Charlotte Underhill of Syracuse, where he formerly resided, has moved to Geneva. He is one of the State District Sanitary Supervisors.

Dr. Albert VanderVeer of Albany, is President-elect of the A. M. A.

Dr. Henry Elsner of Syracuse, has received the degree of LL.D. from the University of Syracuse.

Dr. A. G. Dunbar, Buffalo 1912, is Superintendent of the Oswego Co. Tuberculosis Hospital. He is practicing in Richland.

Dr. Mary Innis Denton, formerly a practitioner of Buffalo, is in Buffalo for the summer at 253 Rhode Island St.

Dr. Richard G. Wright of Buffalo collided with a Niagara Falls trolley in N. Tonawanda July 18. The automobile was damaged but the occupants were not seriously hurt.

Dr. Edward L. Frost of Buffalo attended the commencement of the University of Michigan, where his son Carl, received the medical degree.

The automobile of Dr. Irving W. Potter of Buffalo was stolen from in front of Dr. Harry Mead's residence, early in July and was badly damaged in a collision with a taxicab.

Dr. George Edward Fell has recovered his health and has located at Carlton Court, Main and Carlton Sts., Buffalo.

A bicycle ran into the automobile of Dr. M. F. Nolan of N. Tonawanda, the same day, wrecking the bicycle but resulting in only slight injury to the rider.

OBITUARY

Readers are requested to report promptly the death of all physicians in Western New York, or former residents of this region, or graduates of any medical school in Western New York, and to notify the families of the deceased of our desire to publish adequate obituary notices.

Dr. James Webster Knapp, Syracuse 1881, died suddenly at his home in Canastota, N. Y., June 26, aged 62. He was surgeon to the N. Y. Central and Oneida R. R.'s, president of the Canastota Hospital and of the trustees of the Canastota Library, and was a member of the County, State and National societies.

Dr. Charles A. Meine, Buffalo 1870, died at his home in Germania, Pa., June 7, aged 85.

Dr. Orin C. Shaw, Buffalo 1873, died at his home in Cassadaga, June 28. He had practiced in Chatauqua Co. for over 40 years, 25 at Kennedy, and 15 at Cassadaga.

Dr. John D. Mitchell, (not listed in Polk or State Directory), died at his home in Hornell, June 27, aged 62, suddenly but after long illness affecting the heart. He was a brother of Dr. S. Mitchell of Hornell and father of Dr. Wm. Mitchell of Weiser, Idaho.

Dr. Fanueil Dunkin Weisse, N. Y. University 1864, died at his home in New York City, June 22, aged 72. He was a native of Watertown, Mass. He was formerly Professor of Surgical Pathology at the N. Y. College of Veterinary Surgeons and was for many years Professor of Anatomy, Surgical Pathology and Oral Surgery at N. Y. College of Dentistry. His Practical Human Anatomy, published in 1886, was one of the most elaborate and complete works on Regional Anatomy and many physicians will join with the editor in a tribute to his memory, simply as a matter of gratitude for the assistance rendered by this book in dissecting.

Dr. Wm. H. Gregg (not listed in Polk), P. & S. 1857, died in

St. Cloud, Fla., June 30, aged 85. A native of Elmira, he served as interne in the Charity Hospital on Blackwell's Island, practiced for a time in N. Y. City and later in Port Chester, N. Y. He was surgeon of the 69th N. Y. Volunteers and later Hospital Surgeon of the 8th Brigade and Senior Inspecting Surgeon, during the Civil War. He was prominent as a chemist, mineralogist and ornithologist.

Dr. D. E. Fuller, Buffalo 1878, died in Hastings, Mich., May 13, where he had been in practice since 1881.

ABSTRACTS

Intestinal Toxaemia of New Born Due to Retained Meconium. P. S. Potter, Syracuse, Pediatrics, June, discusses this interesting subject, with reference to other authorities. As his case developed fever and colicky symptoms on the ninth day, after normal milk stools had appeared, it seems to us questionable whether it belongs in this category, but the subject is worth considering, especially with regard to the modus operandi of early obstipation, and particularly with reference to the toxicity of meconium intrinsically and from bacteria introduced in the first few days of life.

The British Pharmacopoeia. After 16 years, a new edition has appeared, incorporating the Indian and Colonial Addendum of 1900 and official for the whole empire. 43 additions, mainly of modern synthetics, and about 150 deletions have been made. Important alterations in potency are as follows, there being also various minor changes in other Galenicals:

Stronger—Acetum scillae, double strength; Linimentum opii, one-third stronger; Spiritus juniperi, double strength; syrupus chloral, about one-tenth stronger; syrupus codeinae, about one-tenth stronger; tinctura aconiti, double strength; tinctura camphorae compositae, one-tenth stronger; tinctura opii, one-third stronger; tinctura strophanthi, four times stronger; unguentum hydrargyri subchloridi, double strength.

Weaker—Acida nicotrici et phosphorici et sulphurici, all made reduced variously one-fourth to two-fifths; emplastrum belladonnae, one-half strength; injectio cocainae dypodermicae, one-half strength; injectio morphinae dypodermicae, one-half strength; liquor hydrargyri perchloridi, one-eighth weaker; pilula phosphori, one-half strength; syrupus ferri iodidi, about two-thirds former strength; tabella trinitrini, each tablet 1-1-30 instead of 1-100 grain; tinctura belladonnae, reduc-

ed 3-10 in strength; tinctura colchici, one-half strength; tinctura digitalis, one-fifth weaker; tinctura nucis vomicae, one-half strength; trochiscus acidi carbolici, one-half strength.

The metric system has been adopted, dosage being given in this system first but also in the apothecary's system. *Edinburg Medical Journal*.

Baby Without Hands or Feet. W. H. Malone of Tallapoosa, Ga., *Med. World* July, reports the following case of a male child, born at term, weight 8 pounds, healthy at 6 months. The mother was a white, unmarried primipara, aged 19.



Cholesterol and Haemolysis. Jacob Rosenbloom and James P. McKelvy of Pittsburg, *Interstate Med. Jour.*, February, 1915, in reference to a case of haemolytic jaundice with splenomegaly, state that if erythrocytes are carefully washed to free them from serum, cobra venom, tetanus toxin, solanin, saponin, etc. fail to cause solution of the corpuscles. One of the most characteristic findings in haemolytic jaundice is the lessened resistance to hypotonic sodium chlorid solution. Chauffard has found that normally, haemolysis begins with 0.44 per cent. salt solution and is complete with 0.36 per cent. In the present case, haemolysis was very marked with solu-

tions even as strong as 0.6 per cent., was present up to 0.65 per cent., but failed to occur at 0.9 per cent. The patient was put on a diet consisting of approximately 60 grams protein, 75 fat, 112 carbohydrate, totalling 1395 calories. For a period of 5 days, the cholestrol intake was 5.22, the excretion in the faeces 12.27 grams, an excess of 7.05 grams. It has been known that lecithin accelerates and that cholestrol inhibits haemolysis. Hence it is suggested that the characteristic pathogeny of haemolytic jaundice depends upon a lessening of the latter, protective agent, in the system. Medak, Biochem, Zeitschr. page 419, vol. 59, 1914, gives the following table:

Disease	Free cholestrol in 1,000 c.cm. blood grm.	Combined cho- lesterol in 1,000 c.cm. blood grm.	Total choles- terol in 1,000 c.cm. blood grm.
Catarrhal jaundice	0.8377	0.4150	1.2572
Icterus gravis (mechanical).....	1.3900	0.4917	1.8817
Jaundice (on admission)	1.8200	0.8856	2.7056
Jaundice (after disappearance of jaundice)	1.2600	0.7190	1.9790
Pernicious anemia	0.7537	0.6560	1.4097
Anemia (tuberculosis)	0.6887	0.3234	1.0121
Polycythemia (cardiac)	1.0065	0.3310	1.3375
Polycythemia	1.0960	0.4640	1.5600
Hypertrophic cirrhosis	0.4855	0.6360	1.1215
Hypertrophic cirrhosis	2.6040	1.0850	3.6890
Banti's disease before splenectomy	0.9736	0.3480	1.3216
Banti's disease after splenectomy..	1.3980	0.7356	2.1336
Banti's disease before splenectomy	0.9510	0.5470	1.4980
Banti's disease after splenectomy..	1.0720	0.7140	1.7860
Hemolytic icterus before splenectomy	0.4910	0.6330	1.1240
Hemolytic icterus after splenectomy	0.9560	0.3460	1.3020

Large Duodenum (which the author terms megaduodenum and which ought to be termed megadodekalodactylos) R. W. Corwin, Pueblo, Col. Med., May 1915. The patient was a married woman, aged 29, with no significant family or personal history, except supra-orbital neuralgia and distress in stomach. April 14, 1914, abdominal exploration showed an extensive veil over the intestines, stomach, appendix and other organs. The duodenum was at first mistaken for the stomach on account of its size which exceeded that of the stomach. The appendix was removed on account of kinks and adhesions and posterior gastro-enterostomy was performed. Contrary to precedent, the author reports no permanent improvement, exacerbations

occurring mainly at times of over exertion. Various authorities consulted by letter agreed as to the rarity of the condition. Huntington considers the cause as not congenital but due to pressure by the mesenteric vessels at the termination of the duodenum. L. L. McArthur adds that dragging down of these vessels by inflammatory processes in the lower abdomen and sometimes as the result of gastro-enterostomy is a special factor. Joseph C. Bloodgood adds to this group of cases the association of acute duodenal dilatation with that of the stomach after operations, in acute typhoid, pneumonia, sepsis, acute rheumatism, etc., and also (compensatory?) dilatation of the duodenum after gastrectomy and gastro-enterostomy. Lavage and other medical treatment failing, most authorities agree on establishing a fistula between the duodenum and jejunum. Ora S. Fowler of Denver reported a personal case very similar, except that the stomach and duodenum formed a continuous cavity, due to pelvic inflammation with a series of operations. He also mentioned one due to treitz hernia, the duodenum being less than 3 inches in diameter. (Note: We have seen only one case in personal practice, diagnosed by auscultatory percussion and fluoroscope as hour-glass contraction of the stomach and, from other signs, as due to cancerous lesion. This diagnosis was mechanically correct but the cancer was at the pylorus and what was supposed to be the distal part of an hour-glass stomach was the dilated duodenum. The cause of the dilatation of the duodenum was not obvious; although there was the temptation to imagine that we saw a tendency to pressure by the vessels as mentioned. The stomach itself, contrary to what might be expected but what is not especially liable to occur, was not markedly dilated).

Stricture of the Urethra III. Henry H. Morton, M. D., Brooklyn, Clinic at L. I. College Hospital.

In making a diagnosis of stricture we cannot tell anything from the history. It simply tells us that the man has an obstruction in his urethra which may be stone, prostate, or stricture. The diagnosis is made by examination, and the flexible bulbous bougie is the best instrument for this purpose. A steel sound is too inexact, as the sound passes through the stricture, gradually dilating it, whereas, a bulbous bougie, on being withdrawn, catches on the stricture band, and a sensation as if passing over a fiddle string is felt.

All soft and recent strictures are treated by dilation and many organized strictures may be treated in this way.

For dilation two instruments are used:—1. Sounds.

2. Dilators.

The effects of dilation are that mechanical stretching and

small tears take place in the substance of the stricture, under the mucous membrane, blood supply is increased and absorption is favored.

By repeated dilations the character of the tissue is changed from a live scar, which would contract, to a dead scar, which has little or no tendency to contract.

In all cases begin with sounds, using one large enough to just stretch the stricture. Massage of the urethra over the sound gives beneficial effects of massage as well as dilation. Sounds should be passed about once a week.

After a dull sized sound no longer dilates the stricture we use a dilator, increasing one or two points at each sitting, followed by an irrigation with silver nitrate 1-4000.

Severe bleeding means too much dilation and patient should have two weeks rest.

False passages are made by pushing the end of sound into the periurethral tissues.

In very tight strictures a filiform guide should be passed and a tunneled sound threaded over it and passed into bladder.

If stricture is so tight no sound can be passed, the guide may be left in for 24 hours causing superficial ulceration, then a flexible bougie is passed and left in for 24 hours. This is continued, using a larger bougie each time till a sound can be passed. This method is not in common use today.

False passages, or in very tight, heavy, dense, tortuous strictures immediate external urethrotomy is indicated.

The Functional Neuroses, Rung, Medical Herald Kansas City, Mo., quoting a prominent authority says, "People who constantly complain of illness die of disease at a ripe old age, their troubles have been functional." He says that fully three-fourths of human illness is of a functional nature, that there is no true pathological condition present, but that although it is functional, it is not always controllable. There is a cause, and this cause is situated in the central nervous system, the brain. He quotes, Cotton, Iowa State Medical Journal who says, "Without the nervous system there would be no pains, no aches; but without the nervous system there would be no life; for it is this system that controls and operates every organ, every function of the human body at all times."

Great stress is laid on the fact that the nervous system has a specific nourishment, the same as the blood, bone, muscles, etc. He says this is phosphorus, lecithin and nuclein, and on its presence, and its normal use depends the action of the bodily functions. As to supplying nerve nutrition, and its use by the system, he quotes a L. R. C. P. of England, who says, "The day has passed when we must guess; the phosphatometer tells us in a few minutes whether sedatives or nerve tonics are

necessary," and on these depend the relief of practically all functional conditions: it is only a question of which to use.

Gastro-intestinal disturbances are carefully considered, he claiming that fully 90% of dyspepsias are due to neuroses, usually a want of nutrition for the nervous system: they are easily, quickly and permanently relieved by attention to this system.

Two typical cases are reported: one a dyspepsia with gas accumulations, necessitating digestive tablets for two years. An index was taken, being 90% minus, phosphorus was ordered in the shape of Co. Phos. Mixture (Dowd): relief was almost immediate remaining permanent, after the administration of this mixture for two weeks. The second case was pain in the legs, backache, dizziness, obstinate constipation with more or less digestive irritation following food.

No pathological condition was evident following careful examination: blood pressure was 160 (patient 38) and an index of 50% plus.

This case being acute, Fl. Ex. Valerian was given in connection with resin podoph. In a few days there was entire relief, blood pressure 135, and index fell to practically normal in a week, patient has been well for over a year.

It is now only a question of whether we should go on guessing, or use ten minutes and be certain.

Splintered Fracture of Patella. Maurice Perrière, Bull. et Mem. de la Soc. de Med. de Paris, May 23, reports a case in a soldier aged 25, struck with a shrapnel bullet, left on the field of battle for 36 hours without irrigation so that suppuration occurred. Silver wire sutures were employed, in the open suppurating wound, both bone and tendons being united. Antiseptic dressings and massage were also employed and union occurred by first intention (sic). The result was excellent.

Patents for New Drugs. P. Gallois, Bull. et Mem. de la Soc. de Med. de Paris, May 23, discusses the dependence of various countries, France especially, on German products and advocates the adoption of a resolution by the Society, to the effect that the formidable development of the chemie industries in Germany have been due to the issuance of patents to physicians and that therapeutic discovery and available new drugs would be fostered by similar measures in France. No definite action seems to have been taken.

Anti-cholera Vaccination. Dopter, Paris Medicale. In the Balkan wars, Armand reported the incidence of cholera among

14,332 unvaccinated officers and enlisted men as 5.75 per cent., among 21,216 men vaccinated once 3.12, and among 72,652 vaccinated twice 0.43. In the civil population of Greece, Cardamatis reported analogous percentages of 2.12, 0.26, and 0.01 respectively. The vaccine used in these cases was prepared at the Pasteur Institute and consisted of cultures on agar heated to 60° C., for an hour. Dopter says three injections at intervals of five days are essential to establish immunity. Doses of 1, 1.5, and 2 cubic centimetres respectively, should be administered in succession.

Subcutaneous Injections of Air or Water in Neuralgia.

Grasset and Rimbaud, *Journ. de Méd. et de Chir. prat.*, lxxxiv, 15. The object is to free the nerve-endings held fast in the hyperaemic tissues. Surmont and Dubois make use of distilled water, Debove and Bruhl use saline (75 per cent.) or Hayem's serum: sodium chloride 5, sodium sulphate 10, sterilized water 100. The injections are given at the painful spots in a dose of from 5 to 10 c.c. repeated every two or three days. Sciatica can be cured by ten to fifteen injections. Cordier, of Lyons, was the first to use injections of air for neuralgia, using an apparatus similar to Paquelin's cautery, in which the cautery point is replaced by a needle, the air being filtered through a tube plugged with absorbent wool. The pump of Potain's aspirator may be used in like manner. The seats of election for the injections in the case of sciatica are the upper part of the buttock, the middle and after parts of the thigh, and the outer side of the leg. After having put in the needle, it is necessary to make sure that the point is not in a vessel. Air is then pumped in very gently, and the patient should only feel some numbness and tingling. The air spreads out irregularly under the skin, makes the limb torpid, and reaches the loins and the popliteal space. From 500 to 2,000 c.c. are thus injected, and the gas is absorbed in from two days to a fortnight. The method is extremely simple, harmless and painless; the patient is nearly always relieved at once. Intercostal neuralgia may be treated in the same way; femoro-cutaneous neuralgia has been relieved; while good results have been obtained in the diffuse painful neuritis, following severe injuries like contusions of the shoulder and the hip. In obstinate cases of sciatica, Sicard advises a combination of injections of air, and of water, and epidural injections. He injects from 800 to 1,200 c.c. of air at the level of the leg; from 60 to 80 c.c. of normal saline containing about $\frac{1}{2}$ eg. of novocain immediately below the sciatic notch in the upper part of the ischio-trochanteric groove; and finally, from 10 to 20 c.c. of the same solution into the lower sacro-lumbar epidural region.

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ORIGINAL ARTICLES

The right is reserved to decline papers not dealing with practical medical and surgical subjects, and such as might offend or fail to interest readers. Contributors are solely responsible for opinions, methods of expression and revision of proof.

Infantile Asthma.

By JOHN C. WARBRICK, M. D., Chicago.

One of the principal causes producing infantile asthma would seem to be the common condition mostly found in the young, and well-known everywhere by the common name of adenoids. These are kind of soft masses of gelatinous-like or lymphoid tissue found in the post nasal space at the back of the posterior nares where they form an obstruction to proper breathing; in some cases, of course, a good deal more than in others, thus tending to produce an asthmatic state, or that of some trouble in breathing.

Anything tending to cause obstruction in the nasal passages of a child of any age, of course, is likely to produce more or less of an asthmatic condition, and often it does not take very much of an obstruction on account of the nasal passages being very narrow, small, and readily capable of getting blocked up in children, and almost the same of the rest of the respiratory tract; more so the bronchial tubes, which can be easily choked up with mucous.

When children are young it often does not take much to get the mucous membrane of the pharynx, larynx and bronchial tubes out of order, more so if they are stuffed continually with all kinds of food, much beyond what is required for their system. Under such conditions there may be a tendency to excessive secretion of mucous in the respiratory tract or some part of it, as in the nose or throat, thus the mucous membrane gets into a catarrhal state, or the child may get a cold or a cough.

It is not very easy then for a child to throw off the mucous accumulated from time to time, and so an asthmatic condition may be brought about.

If the above state is associated at any time with adenoids it, of course, only tends to make it worse and more serious.

By removing the adenoids the existing trouble can, in most cases, be relieved. Another thing likely to obstruct the nasal passages, and cause more or less trouble in breathing, is the presence of a nasal polypus or polypi of the mucous variety, the more common of them. These readily acclude the passages and may sooner or later cause trouble, for they tend, in time, to increase in size.

The nostrils may become completely blocked up by the presence of mucous polypi, thus causing the patient to breathe entirely through the mouth. An enlarged turbinal body, either in part or in whole, may also tend to cause an asthmatic condition, and more so if both of them are affected together; while their enlargement may also be associated with the presence of polypi or adenoids.

A deflected septum, either anteriorly or posteriorly, is another form of obstruction which tends to cause asthma in children; the amount of trouble produced depending a good deal upon the amount of displacement and its location. Chronic catarrhal conditions of the nasal passages, or of the post nasal space, are also likely to produce asthma from the mucous membrane getting into a soggy state, thus tending to swell and cause some obstruction.

This may readily extend downwards and cause a more marked degree of it.

Large crusts and scabs may also form in the nose at the same time and help to acclude the passage.

Laryngeal polypi of the mucous form are another cause of asthma in infants or children.

It may be said that catarrhal conditions, which seem to be very common in children from birth up, cause a great deal of trouble along the respiratory tract affecting the mucous membrane, especially that of the bronchial tubes from the fact that they are narrow, the mucous membrane being easily irritated, its feeble resisting power in younger children, and from its lack of strength to throw off any excess of secretion.

The mucous membrane being readily affected by various conditions of the body a catarrhal state can often be brought on so that an asthmatic state may be produced by any accumulated mucous or anything tending to block up the tubes, especially the smaller capillaries, which are more readily affected than those in older persons; thus a suffocative catarrh may be brought on and tend to endanger life by causing an asthmatic spasm.

A clogging up of the system, from a continual overloading of the stomach, or from a state of constipation, may set up catarrhal conditions, which render the susceptible body of

young children more liable to chills and colds, thus tending to bring on some bronchial trouble in the feeble resisting organism, such as capillary bronchitis, which may cause a great deal of difficulty in breathing, and thus, in time, endanger life.

A slight catarrhal affection may persist for some time in children and not be detected.

It may get more severe and manifest itself in many ways, especially in the bronchial form, while it tends to lower the resisting powers of the child, and the same of nasal catarrh, in time.

Another cause of infantile asthma that may bring on a sudden spasm, and one that should not be overlooked, is an overloaded stomach, or the presence of indigestible food, such as unchewed meat, producing more or less distension.

From almost any continual irritation the child may get a sudden spasm, bringing on choking and suffocation at once, causing a high pulse rate anywhere from 120 to 140, making it blue in the face, with a quick gasping for breath, thus giving some cause for alarm.

Herpes may tend to produce a certain degree of asthma in children, while a temperamental state may bring on a nervous form of it, also a constipated condition which may occur, as it does not seem to take very much sometimes to produce a slight touch of asthma in children, and a mild catarrh or a cold is often sufficient to do this at any time.

An attack of asthma may come on suddenly or not according to what the cause is and the symptoms, as in capillary bronchitis; or catarrh of the suffocative form, or an overloaded stomach. In capillary bronchitis rales will of course be heard over the chest, thus indicating the condition along with breathing.

If the stomach is overloaded from overeating it may cause sickness, and spasms of asthma may come on.

Treatment—The cause of the trouble whatever it is should be looked for and removed; such as the presence of adenoids, edema of the glottis, or any nasal obstruction.

The bronchial form should be treated according to symptoms. The bowels should be kept well open as an important point in these cases with children, as any clogging up only tends to aggravate the trouble.

In the capillary form especially is this necessary, and also the catarrhal form tending to suffocation.

Fresh air is important and cold douching may be useful.

In the case of an overloaded stomach causing distress and gasping for breath, the child should be made to vomit at once. This can readily be done by putting the forefinger of right hand down the child's throat and at the same time bending its head downwards. Children should not be stuffed at any-

time with all kinds of food such as cakes, pie, meat, or candies. Light nourishing food in the proper amount should be given.

The fumes of nitre should be avoided, also anti-asthmatic cigarettes, and inhalations. The herpetic form should be treated by tonics and cod liver oil. For the spasm morphia sulph 1-30th gr. and atrophine hypod.

Spraying the nose and throat may be useful, also adrenalin chloride used in the nose and silver nitrate applications. In the catarrhal form any congestion of the nasal or pharyngeal mucous membrane should be relieved. This may be done by spraying the nasal passages, the use of adrenalin chloride to contract the blood vessels, and repeated applications of a weak solution of silver nitrate to the front of the nose.

The bowels should be kept well open and a very light diet given or no food at all for a time if required.

Embalming. Francis, Military Surgeon, Feb. 1915, discusses methods for use on the sea, where long preservation, with perfect safety, is necessary.

The formula used is Formalin (40%) 125.

Borax 50.

Water to 1000.

An alkali is needed to prevent the bleeding effect of formaldehyde. Borax was found to be the only one that would not cause deterioration of the formaldehyde and is itself a preservative. This solution has been found to keep for three years. Single-artery injection is inefficient—as often noted in everyday experience with “embalmed” bodies. About 15% of the body-weight should be injected, remembering that a pound is 453.59 grams. 2% should be injected into each femoral toward the toes, 1% into each brachial, toward the fingers, 2% into one common carotid toward the head, 7% into the same toward the heart. It is not necessary to drain the veins nor to inject the body cavities, although these should be drenched with the fluid and cotton or saw-dust used for filling in case of necropsy. The anus, mouth and nostrils should be plugged with cotton soaked in the embalming fluid. The entire surface of the body should be washed with it. To preserve for a long time against dessication, rub vaseline liberally over the surface and wind with bandages. Injection is facilitated by using a 3-gallon bottle, with rubber stopper admitting two connections, one for a glass canula to be inserted into the arteries, the other for a pump—a bicycle foot-pump working well. Too much fluid causes a sort of dropsy which, however, disappears on long preservation. This method has been proved efficient after two months of exposure to a temperature of 98 degrees, after embalming.

Nursing and the Disturbances of Breast Feeding.

DR. DOUGLAS P. ARNOLD, Buffalo.

Because of the comparative high mortality in artificially fed children and the fact that mother's milk is the natural, perfect, and most highly tolerated food, every infant under three months old is entitled and should receive breast milk. I say three months because the first three months of a child's life its food tolerance is not high and digestive upsets are most frequent and serious. Except in rare instances this nursing period can be lengthened with benefit to six or eight months when artificial feeding should supplement or take the place of mother's milk, for at this time the iron deposit in the child's liver is about exhausted and mother's milk no longer supplies the demand.

Breast feeding, like many other normal, every day events has been left to the mother, grandmother, friends and relatives to carry to a finish, and thanks to the babies' natural high tolerance, to a successful finish, and so we find nursing and its disturbances bound up in a tangle of illy founded facts and superstitions of which many physicians, I am sorry to say, more or less partake.

The first great question which we must consider is the possibility of nursing and we can now say with very rare exceptions that every mother can nurse her child, and that every breast milk, if sufficient in quantity is good. Every mother worthy of the name, who is made to understand the importance of breast feeding is willing and anxious to nurse her child.

Social conditions among the poor may make it difficult or impossible. These should be provided for. The contraindications are few. Tuberculosis of the mother being the chief one, here the infection of the child is due wholly to contact and not to milk infection.

Infections, per se, are not contraindications unless there is an attending cachexia or the mother's life is in danger. The child has a high grade of immunity until the sixth month and anti-toxins are supplied through the milk. Operations, menstruation, pregnancy, drug giving, etc., are not in themselves contraindications.

A syphilitic woman is duty bound to nurse her child, and, if given Salvarsan a curative effect is seen in the child's condition, but must never be considered a sufficient treatment. Cracked or painful nipples and even abscessed breasts can usually, with proper treatment, be remedied without resorting to weaning. Cracked nipples with the usual silver nitrate, compound tincture of benzoin, anesthesin and nipple shield. Abscessed breasts should be treated surgically. They are due to

infection and milk stagnation; the nursing infant is the best preventive of caking, and seldom, if ever, receives enough pus through the plugged-up ducts to cause harm.

A month or so before the expected confinement, it is a good plan to see to it that the nipples protrude. The regular pulling out a couple of times a day helps, and the resulting massage toughens the nipples.

The regular flow of milk follows the colostrum the third or fourth day. This may be delayed until the third week and a good flow be finally established. Ordinarily a child is not placed on the breast the first twenty-four hours but may be supplied with water. A weak or premature child cannot stand starvation, so if the milk is slow in coming in, the child must be supplied with food, but must also be put to the breast regularly every three or four hours, this regular stimulation being necessary to excite the flow of milk. If the usual initial weight loss seems more than is warranted, supplementary feeding can be carried out with the same precautions, but care must be taken to stop this supplementary feeding as soon as the milk flow is established to prevent an overfeeding dyspepsia.

Due to the small fluid intake of the first few days, some children, with no apparent cause, react with a temperature of 105-106 F.; upon the addition of water or milk this is quickly dispelled and is probably due to salt concentration acting on the unstable heat center. It is, therefore, called Salt or Inanition Fever. This has no pathological importance but should not be confounded with infection.

A nursing mother can eat anything which does not disagree with her. The diet should be well balanced, nutritious, and contain two to four litres of fluid. The quality of the milk is not changed by feeding certain articles of diet except perhaps the increase of fat in the milk of poorly nourished women who are placed on a proper diet. The important and only milk stimulator is, (1) regular nursing, and (2) complete emptying of the breasts, the action of the so-called galactagogues being purely psychic. Other things being taken into account, the child should be nursed six times a day—at 10, 2, and 6, day and night, and a little later the two o'clock night feeding omitted. The mother should take a comfortable position, the nipple washed, and the nipple and part of the areola placed in the child's mouth. The suck reflex is the most primitive of all reflexes and most children easily develop the method of getting nourishment. A little patience is sometimes necessary, and the child's nose free for breathing. Idiocy must be thought of in a case which persistently refuses to nurse.

Premature or weak children must be fed expressed milk. A Breck feeder is useful here.

A normal child can be allowed to nurse as long as it will—fifteen to twenty minutes being the average. Infants, like adults, differ in the rapidity with which they swallow their food. Thus a strong child on a full free breast may get enough in five minutes.

One half of the normal amount is usually taken the first five minutes, one fourth the second five minutes, and the remainder the rest of the time.

After a child has drunk enough it usually just plays with the nipple. The swallowing sounds are absent.

The disturbances of breast feeding are usually not as severe or dangerous as those of artificially fed children and are usually due to faulty technique, but when bad disturbances do occur, and in spite of proper feeding technique, the prognosis is not good, as it indicates a constitutionally poor child.

There are a few conditions which occur in thriving children which may seem disquieting, but if we are following the proper method of feeding we need not worry. I refer to spitting or vomiting and abnormal bowel movements. These conditions if aggravated and associated with stationary or loss of weight are distinctly pathological and will be discussed later.

“Spitting baby, healthy baby” is an old adage which is often true. A strong, greedy child will eat too much, and too fast, and swallow a great deal of air with its food. An air bubble in the stomach is normal but too much causes regurgitation. If the old remedy of sitting the child up and patting it on the back is used, the air rises to the top of the stomach contents, and when expelled is less likely to bring food up with it. Other small devices, such as slow eating, placing child on right side and slightly raised, may be tried with good results. This atonic type of regurgitation cannot be confounded with the spastic vomiting of pyloric stenosis. Lavage once or twice daily and Novocaine .001 before each meal can be used with success in certain types of vomiting.

Constipation is quite common in breast-fed children, and is much to be preferred to diarrhoea. Children often go twenty-four hours without a stool. Enemas and medicine are to be avoided as much as possible. A fermentable sugar can be added in the form of a 10 per cent. malt extract, 20-30 c. c. to be given after meals, depending on the action on the bowels. After three months fruit juices can be given.

Instead of the so-called normal yellowish paste stools, some children will have greenish, watery, slimy stools, which often are increased in number, and still they gain in weight. Unless this is a premonitory symptom of dyspepsia (usually due to overfeeding) the stools can absolutely be disregarded. If the gain is not up to standard and the mother and doctor become nervous, ten to twenty grams of a milk casein preparation can

be given (i. e., Plasmon, a powder, can be dissolved in two ounces or more of water, brought to a boil and, because it is not easily soluble, put through a fine sieve. About one-half ounce is given before nursing. This increases the alkalinity of the intestinal tract, counteracts the fermentation, slows the intestinal contents and makes the stools solid. If it is not readily taken it can be sweetened with saccharine.

We can divide the disturbances into

1. Dyspepsia (a) Overfeeding.
(b) Parenteral Infection.
2. Undernourishment.
3. Disturbance of Balance.

Dyspepsia.

There is a condition the first few weeks of life called "Dyspepsia of the New-born." The child has a low tolerance for food, vomits and has diarrhoea. The chief danger here is the removal of the child, thinking that the breast milk is too strong. Such a child, showing dyspeptic symptoms on the highest tolerated of infant foods will certainly have trouble when put on artificial feeding. These symptoms are usually done away with when the child is placed on five feedings in twenty-four hours with possibly one-half to one ounce of barley gruel given before each feeding. If the child is then taking too much the nursing time can be limited. *Alimentation mixte* feeding should not be thought of before the third month.

Real dyspepsia is usually due to mistakes in feeding and is more common in this country where eight to ten feedings a day are often given. In this way a new feeding is placed on top of the previous one for it takes two or three hours for the stomach to empty itself and it should also have some time for self-disinfection. Finally the child's tolerance is overstepped. It vomits, has diarrhoea, loses weight and appetite and after several such attacks we may suddenly find that we are dealing with a mild case of atrophy; or the child may remain constipated and reach this same result through the inanition route. I will speak of this later.

The treatment consists in regular feeding five or six times a day and depending on the case, and the condition of the child, preceded by a 3-24 hour tea period, always remembering that these weak cases cannot stand starvation.

A too high fat content causing digestive disturbances is almost too rare to mention. If such a diagnosis is made it must be made from a twenty-four hour sample of milk, for milk varies from one-half to 10 per cent. depending on the time of day or time of nursing. This can be treated by using a diluent before feeding and in all cases of disturbance we must be certain that the water need of 150 c. c. per Kg. body weight is supplied. The nurse can be changed remembering that fre-

quent nurse changing is always an indication of poor pediatrics.

When there has been no dietetic error and the child has been doing nicely, a sudden dyspepsia means infection. Every infection dyspepsia does not necessitate a tea period. It may be mild, cause no loss in weight, in fact, the child may continue to gain. Unless the dyspepsia is more severe the food is not changed and it clears up with the clearing up of the infection. A child with a poor water binding power may lose a great deal of weight at the beginning of an infection but this is not the rule. It usually comes later with the secondary dyspepsia.

Overwarming and overcooling can cause dyspepsia.

Cathartics have no place in the infections of nursing infants as they may start a fatal diarrhoea.

If these milder disturbances of nutrition are not early or properly treated, the more severe nutritional disturbances can result but these are not as frequent or usually as severe as in artificially fed children.

Undernourishment.

Undernourishment on the breast is shown by stationary weight or gradual loss, bad tissue turgor, constipation, anemia, fluctuations of temperature and poor immunity. It usually occurs in the following way: a child is irregularly fed, only partially empties the breast; the milk therefore, due to lack of drainage, "goes back," the child loses its appetite, loses weight, one or two bottles are added and the breast stimulation is taken away to a greater degree. The child is not getting its quota of 150 c. c. per Kg. body weight, and this can be told only by keeping account of the child's weight before and after nursing for twenty-four hours (single meals differ greatly,—from 40 to 300 c. c.) Now, possibly because the child is losing weight and does not seem to get enough milk it is given more meals a day, aggravating the present condition.

If the child is not taking enough milk per nursing and is on five meals a day, the number can be raised to eight, but when the child has been taking ten or twelve meals the number of meals must be reduced, care being taken that the already reduced child does not suffer from further inanition. This mistake is liable to happen when inanition is associated with diarrhoea, simulating dyspepsia; further starvation here would be fatal.

How do we treat the usual overfeeding dyspepsia?

If necessary, for vomiting, etc.—(1) A short tea period is given; then—(2) regular feedings, five to eight, depending on the causation of the trouble; (3) after each feeding the breasts are emptied either manually or with a pump. If the child's appetite is poor and the breasts are poor, trouble may be experienced in re-establishing the flow. There are then several

possibilities: (1) 5 drops of essence of Pepsin can be given three times a day before meals to stimulate the appetite.

Then there is that large subject of "wet nursing." (1) Another child can be taken on, for breasts react to increased stimulus. From one to four children can stimulate a breast to secrete 3 to 4 litres, or, (2) The weak child can be placed on the milk rich breast and the strong child on the poor breasts and allow him to bring the secretion back. This is really unfair to the strong child, and care must also be taken that the weak child does not, because of poor emptying allow the good breasts to retrograde. It is much better to place the two children on the milk-rich breasts.

We all know that wet-nursing is fraught with social, moral and medical problems which are difficult to handle.

The age of the wet nurse and age of her child makes no difference as to quality of her milk, but we should never use a nurse whose child is under ten weeks, even with all our carefully conducted tests for syphilis. We can then also tell how well her child is thriving. We must never forget that we owe just as much protection to the wet nurse; and her child has the first moral right to its mother's milk.

Are these cases ever better off weaned?

Yes. After the third month in cases of so-called Disturbance of Balance with stationary weight, constipation, etc., coming on as described above or following an acute disease of some type. *Alloiment mixte* can be used with benefit.

These children can usually be classed under the headings of Neuropathia or Exudative Diathesis. They gain in weight remarkably if put on one or two feedings of a low fat, high carbohydrate food. So well do they gain that the mother must be cautioned not to wean the child entirely.

Because mothers' milk is low in albumen and salts, and these are the elements most needed for cell growth (the fastest growing animals being richest in these elements) mothers' milk is not a particularly good food for recovering a great weight deficit such as we find in the types of atrophy. In children with fluid stools a proteid preparation can be added (Plasmon). I spoke of this under "diarrhoea." Or, the child can be taken off breast milk and placed on *Eiweissmilch*, later to be transferred to ordinary milk mixtures.

There is one thought which I hope to have brought out in this paper, and that is that most mothers' milk is good, and many children are deprived of its benefit without sufficient cause and I hope to have given a few hints which will help to keep these children on their natural food.

The Beginnings of Education.

Some Suggestions to Parents and Teachers.

By HENRY JONES MULFORD, M. D., Buffalo, N. Y.

Second Paper—The Teacher.

Teaching belongs to the gentle arts; for, if gentleness counts for anything at all in this world here is the place where it counts for the most. But, teaching has been anything but gentle. The teacher has been a "driver;" he has held the reins and the one at the farther end has gone as the driver directed. And, usually, the driver has held the reins in one hand and a whip in the other.

To drive! What a way to teach; what a way to teach young children! Pedagogy so construed, so misconstrued, becomes for the child just a monotony of days. Day after day the same round, a vicious circle; a circle encompassed by fear and fatigue. What a way to teach! Is it any wonder that man has been so long in "arriving?" As some one has said: "Progress to man seems rather to happen than to be achieved."

But we begin to realize the possibilities of teaching; we realize that the teacher must guide rather than drive. And we have discovered where the child belongs in the human scale. We find that the child is only a child, that he has only a child brain, a brain bound by the limitations of the era of its development. Knowing this we are able to perceive the limitations of the child mind. We find that a pint cup will hold only a pint; and we find, also, that there are good and bad ways for putting things into even such an obvious thing as a pint cup.

What is teaching? In what does this "gentle art" consist? A definition will not be difficult if we recall what was said in the previous paper. Teaching is the gentle art of developing the conscious memory through action without fatigue. Through the art of the teacher the cells of the higher brain centres are developed; but no fatigue should follow as a result of the process.

But haven't we seen that fatigue is a natural consequence of all effort, whether the effort be mental or muscular? And if natural how may it be avoided? Yes, fatigue is a natural outcome, but, fatigue as actual tiredness is never present except through unnatural circumstances. The beginning of fatigue attends all effort, but real fatigue comes only through over-effort. We see, then, that we cannot avoid the approach to fatigue, but we can avoid the actual production of fatigue. We must avoid the production of fatigue in the child brain, for, the child brain being a brain in the process of growth, is easily

upset. And, if memory is the main factor in the development of the brain, and fatigue is the main factor in the retardation of that development, then it is quite obvious that fatigue is the one great thing to be avoided in the development of the child.

If memory is the main factor in brain development then it is to memory that we must look for success in that development. What is the best method for developing the memory? We lay the foundation of memory just as we lay the foundation of the cerebral cortex. The two, in fact, are laid simultaneously; that which influences the one influences the other. As the cerebral cortex has developed through action, then memory must develop through action. Action is at the bottom of the development of the brain cells, and the foundations of both substance and function are laid through that. If these foundations are laid properly in childhood the brain always will be a willing instrument. A brain that has developed in the right manner always will have good memory; and no man possessing such a brain ever will need to pursue that will-o'-the-wisp seen so often in the advertising pages of our magazines "Lost Memory Restored."

Is it possible to "restore" a lost memory? Speaking generally we can answer no. None of the "systems" in vogue can restore a lost memory or strengthen an impaired one. It may be that a "system" will enable one to fix a certain idea in the mind; but, if it does, it is only through a round-about way. And, even though it helps with the one idea, the being able to recall the one does not help with other ideas. The "system" does not improve the general faculty of memory, it merely fixes independent ideas more or less firmly in the mind through an unnecessarily laborious process. In order to recall **each** idea it is necessary to employ the same process for **each**. This puts a tremendous lot of extra work upon the brain cortex, and weakens, rather than strengthens the memory. The fact is, that memory cannot be influenced except through the fundamental process: the memory can be recreated only after the manner of its creation. If the memory fails in adult life in an otherwise normal individual it is because of its lack of training, or, of faulty training, in the youth of the individual. It is then impossible to restore it because the cerebral cortex has become fixed in the wrong way; and there is no "system" known that will alter the development of an already developed brain. I want to impress upon you the fact that memory must be developed; it cannot be cultivated.

In developing the child brain through memory we have to remember that our results are to come through natural channels, through the activities of the child. No ideas should be presented to young children except active ideas, ideas that are alive, ideas that are **visible**. The idea must be accompanied by

an object. The young child cannot grasp an idea for which his mind does not hold an image. One may describe an elephant to a child over and over again, but, until he goes to the Zoo and sees an elephant and feeds him peanuts he cannot know what an elephant is. Until the **image** of the elephant is in his mind the word is meaningless. And, not only is this true of young children, but it is true, also, of children of any age. The child learns best after this manner because this is the manner in which his brain tissue has developed. The brain tissue having formed this habit of procedure always must be approached through this habit. The habit has come in a natural manner, through a slow growth, a growth without effort on the part of the cerebral cells; and, having come in that manner, no fatigue has accompanied the process. We gather, then, that in order to obtain the proper result the brain cortex, that is, the memory, must be developed in the natural manner, slowly and without fatigue. We must not force development of the child brain: we must not urge function upon it too early. The centres must not be put to serious work before they are ready, they must not be pushed beyond their strength.

In my first paper I said that I believed that no child under eight years of age should receive formal instruction. Formal instruction before that age would force the brain centres, centres unprepared for complete function. The centres would be prepared to receive and to store up sensory impressions, for the exercise of memory, but they would not be prepared for real work, for the action of thought. They could receive, but they could not give. At this early period our special attention must be given to the development of memory, for the development of memory is the development of cortex. After the cortex is formed real instruction may be begun.

But, while formal instruction is improper before the age of eight, some sort of instruction will be in order. If the child is developing his cerebral cells he must develop them properly. The cells need the discipline of guidance. The images which come to them should come in an orderly sequence and receive proper registration, for these images are the thought images, they are the basis of future thought, and, as such, must receive careful attention. We must guide the child's activities; his life is a life of action, and it is through this action, this life-action, that he is to be developed. His life-action is mostly play action: his world is a play world. We should, then, get at him through his play; we should oversee his play and direct it. If there is a house to be built with blocks one should sit down with the child, and, without appearing to do so, direct the building. You build **with him**, and, in the building, you show him how to build, how to place the blocks to some purpose. If the child were left to build by himself he would place

the blocks in a haphazard manner, so that the walls of the house would be all askew and unstable. The child might, after repeated efforts, get the thing right, but it would be only after the effort had been repeated over and over again in this futile way. There would be a great deal of wasted effort, and through this wasted effort, through the reception of these many unnecessary and wrong impulses the brain cells suffer from fatigue and confusion. If at the beginning the sensory impulses are the correct ones there is no wasted effort, there is no fatigue, no confusion, and the impulses are received in the right manner, consequently the brain image, the idea, is registered clearly and **permanently**.

In developing the memory we are preparing the brain for the higher functions of thought and reason; and, in proceeding in that direction in an orderly and natural manner, we develop these higher functions to their highest efficiency, and without injury to the brain tissue. I cannot believe in any system of child training that takes young children and makes them to read, write, and spell, at four or five years of age. In a child with unusual brain development, in a genius, this may be permissible, but, in the average child it is not. One can **make** the human animal do almost anything, **but forcing is not the proper thing where brain tissue is concerned**. We may be able to raise cucumbers after the hot-house method but not children.

The modern school room presents the most unnatural environment in which a child can be placed; there is no environment that can produce fatigue in more ways, nor more harmfully, than that. Its capacity for harm is three-fold: through bad air, wrong posture, overteaching. Of these three we shall confine our attention here to the last. It is the fatigue produced through overteaching that is the greatest cause of failure in our school rooms. Overtaching is overcrowding: it is forcing the cerebral cells beyond their normal capacity. In increasing cell activity we are increasing the products of that activity; we are producing fatigue. And this in an individual sitting in a school room. When a child sits down his heart beats less frequently, and the blood current becomes slower. In a slow blood current the products of cell activity are not carried off as rapidly as they are in a more rapid current. And, if added to the slowing of the current, there is an overproduction of the tissue waste, if the fatigue producing substances are produced faster than they can be removed, the result is disaster to the cells in which they are retained. If the child were running about these matters would be removed as fast as they were produced. The activity of the child would increase the action of his heart, the blood current would be accelerated, and the cells would be washed

free before they became choked up. It is for this reason that a child can run about upon his feet for so long without feeling fatigue, while pure brain action without activity upsets him in half the time.

In the child suffering from the fatigue of overteaching the brain is unable to retain the images coming to it; it repels the image-impulses through sheer inability to control them. The child then becomes inattentive and careless. When this happens it is a sign that the child needs a change; his thought centres have become fatigued, and the school room has become distasteful to him. He needs to have his blood current increased that his cells may be revived. Put the child out-of-doors for a half hour and note the change. He will become revived; his cheeks will glow and his eyes sparkle under the renewed activity of the life current; and, what is more, his brain will be clear and ready for work.

The remedy for this sort of fatigue is **prevention**; it should not be allowed to assert itself. How is that to be brought about? As the cause lies in the modern school room then it is to that we must give our attention. The modern school room must be effaced; that is, it should be rearranged until it no longer resembles a school room. It should become a room in which there is no restraint, no tension, no fatigue: it should be a room in which there is a complete sense of mental freedom. To that end the fixed seat and desk must be removed, and the child should be permitted to move about freely. He may be permitted to do anything within reason to relieve strain upon his muscles and his brain cells. The school room should be made interesting and free; the number of pupils in one room should be reduced to ten; and the subjects for study must be so presented that the child mind will grasp them without effort.

There are few of us who enjoy eating a piece of dry bread; but, if that piece of bread be toasted and buttered, how it will be relished! It is the same with facts. A dry fact may be so dressed up, so toasted, made so crisp, that the brain will seize upon it and store it away without effort. It is effort, undue effort, that produces brain fatigue, and obstructs thought. Thought is just the calling up of successive images having a common relationship. The child will learn to think in a rational manner, therefore, if the images which go to make up his thought are assembled in the same manner.

We see, then, that teaching is not the simple thing it seems to be; we cannot just throw a fact at a child and force his brain to store it up. In fact we must not throw it at him at all. The forcing process then becomes too obvious and the fact is rejected. The reception of the fact must be through such a method that it will seem a pleasure rather than a duty. **The**

fact must be alive, must be active: it is action that appeals to action. In my first paper I called attention to the fact that the primitive brain was a brain of action, and, I said that the child brain was a primitive brain. I repeat that here because I want to impress upon you the fact that **action is the basis of all brain function.** In man this covers a broader scope than it does in the other animals, for it influences the higher centres as well as the lower. Observers are agreed upon this point. Professor James, late professor of Psychology at Harvard, said: "All consciousness is motion." Herbert Spencer: "Play is the child of work." Henry Drummond: "The first law of evolution is motion." Someone else: "To keep boys contented things must move." Another: "An idea always tends to work itself out in action." And another: "If man is made of dust, the boy is dust plus electricity." And, lastly, I will ask your attention to two small books which have been published within the past two or three years. (These books may be found at the Buffalo Public Library). The first book has this title, "Perse Playbooks. No. 1. Dramatic Work by Boys of The Perse School, Cambridge." (England). The second, "The Eurhythmics of Jaques-Dalcroze."

In the first book are three playlets, written by the boys of the school, none of whom are over fifteen years of age, and some introductory remarks by the officials of the school. The Headmaster says: "Acting is one of the most potent means of learning. Thought, word and act, linked together make an impression such as nothing else can. In this direction lies the salvation of our schools. We all know how dull a text-book is; a history of England, a manual of grammar, even chemistry books are sometimes dull. But, if the teacher uses his book as a suggestion, makes his history a story, sets his pupils to act it in make-believe, before they know what they are doing they are practising English composition and English grammar, and learning English history.

"The plays in this volume are specimens of the result. From improvised scenes, with the teacher's help to guide them, they have gradually perfected their play, so that it is the product of united effort. I think it shows a natural and unforced spirit which will convince the intelligent reader that the pupils have been taught, not crammed; they have learnt to do, to express themselves, not to reproduce some one else's opinion in worse language than they were originally put in."

The Master of the Players says: "It is not acting we teach the boys, but the value of action. If it be said that boys are born play-actors we do not agree, but, to use the words in a wider and more natural sense, everyone knows that boys love to play and live to be active.

“Proficiency does not come from reading and listening, but from action, from doing and from experience.

“Good work is more often the result of spontaneous effort and free interest than of compulsion and forced application.

“The natural means of study in youth is play.”

Several years ago Professor Jaques-Dalcroze established a school for music at Hellerau, in Saxony, four miles outside of the city of Dresden. (With the outbreak of the present war the Professor became **persona non grata** to the German Government and the school was removed to Switzerland, I think). In this school the teaching is through a combination of music and gymnastics; that is, music is taught through the actualization of rhythm, the brain is brought to a realization of music through body actions associated with the music-idea

The Professor says: “The object of the method is, in the first instance, to create by the help of rhythm a rapid and regular current of communication between brain and body; and what differentiates my physical exercises from those of present-day methods of muscular development is that each of them is conceived in the form which can most quickly establish in the brain the image of the movement studied. : : : : The creation in the organism of a rapid and easy means of communication between thought and its means of expression by movements allows the personality free play, giving it character, strength and life to an extraordinary degree. : : : : Lessons in rhythmic gymnastics help children in their other lessons, for they develop the powers of observation, of analyzing, of understanding and of memory, thus making them orderly and precise. : : : : From many years experience of music teaching I have gradually produced a method which gives the child experiences instead of musical knowledge.”

I have quoted at some length from these books, but the matter quoted is important as it helps to confirm what I have said in regard to action and development. In the first book we are shown how the child learns grace of tongue and of thought through action, action that holds his interest; in the second how he acquires grace of body and of expression in the same manner. At the Perse school they start with an idea; the brain has something upon which to fix its interest, and upon which it can build: the memory is built up gradually, each successive fact in the memory being connected with the one behind and the one before in a logical and interesting manner. Professor Dalcroze also develops the memory in a logical manner. With his rhythmic movements he associates with the music-idea something that fixes the latter in the cortical cells. He says that he gives experience instead of knowledge. But experience is knowledge. What he means is that he gives experience-ideas upon which to build knowledge. It is experience that

teaches, and the manner in which the experience is acquired determines the value of the teaching.

Thought is a function of the mind; one might say, with truth, that thought is mind. Thought begins early, in the child before it is obvious to the observer, but in the beginning it is of little value as thought. It is merely reflex action. The child's brain cells attempt the exercise of the function which belongs to them, but, lacking strength and experience, they cannot think properly. The child has neither the ideas nor the images upon which to base right thought. He thinks according to his own experiences, and his own experiences being very limited or imperfect, his thought takes on a bias. His association of mind-images becomes improperly adjusted. **His thought sequence is faulty.**

The people whom I have quoted have seen the results of action in connection with brain development, but they do not **quite** appreciate what it means. They see that the individual is better because of action, but they do not know **why** he is better. They must understand that it is action that develops the brain cells, and that wrong action will develop them as well as right action. Knowing this it becomes perfectly obvious to anyone that the action must be the right action in the beginning. But, the man brain must not be put to work too early, for its development must not be forced. The animal brain requires a certain period for its development, that period lengthening as we ascend the scale. Man, the white man, requires the longest period of all the animals. If we force the brain we shorten this development period; we bring out the function of the centres before the centres are ready for work, thereby weakening the cells and shortening their life period.

Before ending this paper let us return to the school room again, for a moment. I said that the modern school room should be eliminated. I re-affirm that; and I will go further: I would completely alter the methods of that room.

The first things to be considered would be the methods of study and recitation. A friend, with whom I have discussed this matter in a general way, gave me a valuable hint. He said: "I am beginning to think that the recitation hour should be the study hour." I am inclined to agree with this. The object of education is the **permanent** registration of useful ideas; and, in order to make the registration permanent, the method of registration must be the right one. Under the present method the pupil does the greater portion of his studying under the direction of either his parents or himself. In either case he has a poor teacher. If he has to work out the matter for himself he is just as apt to go wrong as right; and, if his parents take a hand in the process, he actually learns little or nothing. The system of today prepares the pupil for the recitation hour

but not for the future; it is a temporary make-shift, it does not accomplish a permanent registration of ideas. It would be better, for the beginner at least, if the recitation hour were used in showing the pupil how to proceed; if he were drilled in the method of procedure until he had learned how for himself, until his consciousness had recognized it. It must not become merely automatic, that is, a reflex action, for then the pupil is not conscious of what he is doing. No pupil has learned a fact until he is conscious of that fact, until he can recall it to active consciousness. If he cannot recall it of his own volition his cells have only a reflex knowledge of it, and the knowledge is of no practical use to him. Now, if the pupil can be taught in the right way, if he can be guided into the permanent way, his foundation ideas will be laid in the proper manner, and the registration will be permanent. If the lessons were discussed in open class, if the teacher put the subjects before the pupil in a live, in a graphic manner, they would be learned in the easiest possible manner, without effort and, consequently, without fatigue. Learned in this manner the idea would be registered for life, not merely for the registration hour.

Another change would concern the teacher. I would have the teacher eliminate all personal opinions, all intuitive ideas. Many crimes are committed in the name of intuition, for, intuition is only a sort of subconscious guessing. The school room is no place for guessing. If a teacher has ideas let them be presented to a committee maintained for that purpose, and let the committee work them out. I want to quote again from Professor Dalcroze. In regard to the teacher he says: "It is quite impossible to develop others until one has proved one's own powers in every direction, until one has learnt to conquer oneself, to make oneself better, to suppress bad tendencies, to strengthen good ones, and, in the place of the primitive being, to make one more complete who, having consciously formed oneself, knows his powers. Only in proportion as one develops oneself is one able to help others to develop."

In the new school room the word "punishment" will be almost unknown, for, the occasions for punishment will be very rare. But, if an occasion does arise the naming of the punishment will not be left with the teacher. There will be a punishment committee, on which will be some of the pupils themselves, to decide all such matters.

Why do I object to the teacher being the one to measure justice? Because she occupies the position of an autocrat, and autocrats often go wrong; she is as apt to administer injustice as she is justice. Her administration is, often, only guessing. Here is a case in point. I know very well a boy of nine who attends the public school. One day a substitute teacher took

charge of his room. During the morning she had occasion to leave the room for five minutes, and while she was away there was considerable disorder in the room. She was near enough to hear the noise, and when she returned she looked about for the guilty ones. She asked who had caused the disorder, and getting no reply, hit upon my boy friend as the one most to blame, although he had had no hand in the disturbance. In spite of his denial she adjudged him guilty and ordered him to stand in a corner of the room for one hour.

Now, there was an occasion where the punishment idea was the wrong one, from whichever angle it might be viewed. First: The teacher did wrong in doubting the boy's word. If one doubts a boy he becomes careless as to your opinion of him. When the teacher is unfair the boy knows it, and his first thought is to get even. He fights fire with fire.

Second: The teacher did wrong in punishing the boy for something he did not do. It goes without saying that punishment under such conditions is wrong, but still, we do have to say it. It may be claimed that, this being a substitute teacher, there was some excuse for it; but, **there is no excuse for injustice in the school room.** A substitute teacher is a teacher, subject to all the laws governing teachers. What she did might be done by any teacher.

Finally: The teacher did wrong in punishing at all, and in administering the punishment she did. The punishment was totally without reason; it was, in fact, criminal. Think of making a boy of nine, a boy whose muscles cannot keep quiet, stand completely still for one whole hour. Did the reader ever try to stand **still** for an hour? And was it easy? **Then what about that boy?** That restless, growing, and, at the time, insulted boy? Surely that punishment **was** a crime, a crime against reason and against boy nature. In committing crimes we go backward instead of forward.

The assertion is often made that civilization is a failure; but that assertion is false. The methods of civilization often are wrong, but its principles cannot be. If there is any failure it is because we lack the proper method for the development of the individual. Man is still in the animal stage; he lacks the degree of development necessary for the appreciation of the finer principles of civilization. The real lack here is the lack of brain development. What is needed is a system that will take the child brain and develope it according to the laws of development as revealed in the evolutionary history of the brain. A brain so developed will be a brain in complete mastery of itself; it will be a brain having full self-consciousness, a brain that understands, a brain that is aware of its own powers.

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Typhoid.

With possible rare exceptions, typhoid is a human disease. With every allowance for contact infection which is usually limited to persons closely associated with an actual case or a "carrier," for conveyance by flies, etc., and for infection of milk, garden vegetables and other foods, the great majority of cases are due to infected water, and to water as a liquid, ice conveyance being slight. Without typhoid and cholera Asiatica, almost any degree of filthiness in the admission of dejecta to water supplies could be tolerated without actual danger since these are the only two essentially hydrophoric diseases—with the possible exception of certain local diseases not familiar to European and American practitioners.

Any reasonably thorough method of preventing infection through water—as by boiling, sand filtration, or even chemie treatment—rapidly reduces the incidence of typhoid to somewhere between 40 and ten cases a year per hundred thousand population, the lower figure representing what may be regarded under present conditions as an inevitable incidence. Even a higher incidence does not necessarily indicate inefficient purification of the water supply. In Buffalo, for example, the seasonal incidence and study of place of occupation, circumstances of infection, etc., show that at least half of the typhoid cases originate outside the city.

On the other hand, even a slight proportionate incidence of typhoid in a community, with precautions against local spread of infection, magnifies the prevalence of the disease in any community to whose water supply the former's sewage is

tributary. The doctor or nurse who does not disinfect typhoid stools and urine—the latter containing bacilli in about 25% of samples analysed and probably in nearly 100% of the aggregate urines for the course of the disease—is close to manslaughter. But a great many are heedless, many cases go unrecognized for several days, even for weeks. So far as we know, NO BOARD OF HEALTH, ANYWHERE, MAKES SYSTEMATIC BACTERIOLOGIC EXAMINATIONS OF TYPHOID FAECES TO DETERMINE WHEN A PATIENT SHOULD BE DISCHARGED FROM QUARANTINE. It is estimated that 3-5% of typhoid cases become carriers and as the discharges have been shown to be infectious many years later, it is obvious that, in a few years, the carriers in any community represent more potential infection than the maximum of actual acute cases.

We have purposely used the term **community** in referring to the magnification of typhoid by passage through human cases. The community may be a family with a privy draining into a brook or, along a seam of rock into a neighbor's well; it may be a large city discharging sewage into a river. What we want to emphasize is that the danger of infection can not be gauged by the actual or relative number of cases of typhoid in the former. In fact, it is the one or two cases in the country, the dozen or two in the village that represent enormous incidence rates, not the epidemics of hundreds or thousands of cases in large cities. But, for some years to come, we shall have the puzzling problem of the carrier—puzzling diagnostically legally and therapeutically. Moreover, relative volume of sewage and potable streams, rapidity of current and other factors influencing sedimentation, oxidation, etc., are probably of more importance than number of cases.

Prevention of Typhoid.

Do not forget that, owing to the relatively greater progress of cities in sanitation, as compared with villages, isolated dwellings and especially hastily and cheaply constructed hotels and boarding houses occupied only during the summer months, typhoid is not mainly a vacational disease. It is even more plainly an early autumnal disease than in the old days when we all drank diluted sewage, and even more plainly not explainable on climatic grounds, except in the sense that summer tempts us to places where the water is worse than the average.

Vaccination has rendered typhoid almost as preventable as small-pox, though the protective value of the vaccination is less permanent and not so nearly absolute. Do not be too much

afraid of seeming mercenary. Advise your patients and acquaintances—not forgetting your family and yourself—to be vaccinated against typhoid, unless they have already had the disease or have been vaccinated within two years. If necessary, vaccine can be obtained free from the Health authorities in most places but we see no reason in encouraging either public or private charity for well-to-do persons, in this condition more than in the event of an actual infection. Remember, however, that, as long ago threshed out for vaccinia, it is neither advisable nor safe to vaccinate if an infection has already occurred.

Educational Requirements.

This is addressed, by request to physicians having sons, other relatives, or young men in whom they are personally interested. Do not encourage such young men to enter medicine unless they have a genuine preference for that calling and at least a moderate degree of fitness for the work, including patience, tact and good health and habits. Give them, also, a fair understanding of the favorable and unfavorable factors, economic and otherwise, incident to medical practice.

Granted that the decision in favor of a medical career has been made, insist that the young man shall fulfill the requirements in a liberal spirit, not in that of getting the medical license with a minimum of time, education and work. It is easy to read the signs of the times. By the time any youth who is now about to start on his medical training is really engaged in active practice, most states will have required two years of college work as a basis for commencing the medical course and, probably, several of the leading institutions will require a full college training, with bachelor's degree.

There are, in the main, four objections to the elevation of strictly educational requirements for medical license or any other similar privileges: 1. The poor boy argument; 2. The argument that what was good enough for one generation is good enough for the next; 3. The sacrifice of time, especially in consideration of the rather small emoluments of medical practice; 4. The lack of practicality of education along scholastic lines.

The first one does not impress us very forcibly. There is no form of philanthropic assistance more freely rendered and more widely available and none which may be received with such entire freedom from loss of self-respect, than free tuition, help to self-support or favors toward current expenses while getting an education. It is no favor to the poor boy to give him a poor training and no genuine indication of democratic tenden-

cies to emphasize the opportunity for advancement without insistence on a corresponding improvement of service.

In very few instances can the standards of one generation be properly applied to the next. The college represents no greater hardship nor effort today than did the rudimentary training of the little red school house, two generations ago, nor that of the academy or high school, a generation ago. For some reason or other, the real scholarship, mental ability and progressive education of the individual seems to depend rather on the proportionate effort made toward formal schooling than on the actual amount received and, at present, there is not the same expectation of mental advance beyond school days as there was formerly. Thus, the man who resents the higher education of his son as a reflection on his own attainments, fails to grasp the real distinction between formal and informal, post-graduate education.

The sacrifice of time involved in a general advance of requirements is a very serious problem. The late William Pepper expressed the opinion that any system of educational requirements should allow the youth to enter upon his life work, in medicine, by the time he was twenty-three. However, with greater attention to individual mental ability and the possibility of more accurate grading in dealing with more concentrated population, it is possible to shorten the grammar school period for many children and, with more mature and more uniformly better trained medical students, the medical course itself can be, if not shortened, at least held to its present time. As higher educational requirements tend automatically to restore the balance between supply and demand and as the number of medical positions supported by some branch of the government, it will also be possible to compensate by a shorter period of non-employment, for the greater time spent before receiving the license.

While it is the custom to regard higher education as impractical, actual experience disproves this idea. From a narrow financial standpoint, the young man contemplating a life-work—or his older advisor for him—should take into consideration the increasing number of special positions for which a college education is either formally required or counted as a favorable item in making selections. One of the largest electric companies of the country regularly picks over the graduating classes of two or three technical schools yearly not so much for its strictly scientific purposes as for the rank and file of its executive and commercial positions. Modern business generally depends largely on college graduates and even in politics, we note the same tendency. So far as the professions are concerned, it may almost be said that there is a

popular demand for a college education, though we due qualifications.

If one reviews the progress of medicine for the last few years, it can scarcely be questioned that it has been due almost entirely to the broader interpretation of technical facts by knowledge that would be superficially regarded as impractical and, certainly, as pre-medical, so far as arrangements of courses are concerned. Almost all the elaborate instruments and apparatus by means of which medicine has made its astonishing progress, depend upon knowledge which the average person must gain between the high school and the medical college. Even in legislation to advance matriculation standards, we note the influence of "practical" rating of subjects. Chemistry, physics, allied sciences and modern languages are recognized as "practical" for the medical student although, unfortunately, the amount required in each of these subjects is scarcely adequate to fulfill the hope of advanced research based on their principles. In reviewing books of many fields in medicine, we have been frequently surprised at the inclusion of higher mathematics and at hints of the remarkable developments that a more general familiarity with these branches, and with practical medicine, might bring about. In fact, the more one observes, the more confused he becomes in attempting to distinguish between useless educational lumber and information, apparently of the most "scholarly" and unutilitarian kind, which affords a basis for the most practical results.

In conclusion, we wish to emphasize the fact that Personal, in the title of this article, does not apply to the editor but to the reader who is somehow responsible for the immediate future of a prospective practitioner of medicine.

The Accidental Factor in Mortality.

The recent overturning of an excursion steamer, almost at the dock, in Chicago, with a loss of life of approximately 1500, is said to make a new record in drowning mortality, exceeding that of the Titanic disaster or that due to the sinking of any other boat, at any time, from any cause whatever, even including naval warfare. The wreck of a troop train in England, while in a sense, a military casualty, was essentially due to the same errors usually considered to affect this country and not those of Europe. The destruction of about 40 lives in Erie, by drowning and traumatisms due to a cloud burst overflowing a small creek was one of the least foreseeable disasters on a large scale reported since the California earth-quake. Meantime, N. Y. City reports an increase of automobile casualties and an expected death list for the year of about 400.

Under present conditions, in this country, suicide accounts for about 1.1% of all deaths—perhaps more, from the tendency to ascribe to accidents, deaths really suicidal—while other violent and accidental deaths not due to disease, account for 6.4% of all deaths. Thus it will be seen that at least 7.5% of all deaths are theoretically preventable, without regard to hygiene, sanitation, or skill in treating disease. As improvement in these factors progresses, this percentage is likely to be increased. In almost all discussions of the death rate, the medical profession is, implicitly or explicitly, held responsible for the total though, obviously, in no personal sense except by extremists.

We make no reference at present to military mortality. Enormous as this is, it is by no means so important a factor as generally considered. During the Civil War, it was about 20:1000 per year, less than the average aggregate peace mortality of the period though, of course, higher than the death rate of healthy adult males—the class from which soldiers are mainly drawn. Statistics for the present war are so incomplete that it is impossible to make any definite statement though the opinion may be hazarded that the increased destructiveness of modern weapons is more than balanced by the general use of trenches, not to speak of improved sanitation.

BOOK REVIEWS

Books mentioned may be inspected at and ordered through this office. So far as possible, books received in any month will be reviewed in the issue of the second month following.

Anti-Prohibition Manual. Published by the National Wholesale Liquor Dealers' Assn. of America, 301 United Bank Bldg., Cincinnati.

A pamphlet containing statistics of the workings of prohibition, of interest in itself and presenting arguments against interference with personal liberty.

The Medical Clinics of Chicago. Volume I. Number I. (July 1915). Octavo of 208 pages, 37 illustrations. Philadelphia and London: W. B. Saunders Company, 1915. Published Bi-Monthly. Price per year: Paper, \$8.00. Cloth \$12.00.

The first issue is a volume of 208 pages, illustrated. A number of physicians and surgeons are represented and the topics are not limited to any one branch of medicine.

Exercise in Education and Medicine. By R. Tait McKenzie, A. B., M. D., Professor of Physical Education, and Director of the Department, University of Pennsylvania. Octavo of 585 pages, with 478 illustrations. Philadelphia and London: W. B. Saunders Company, 1915. Cloth, \$4.00 net; Half Morocco, \$5.50 net.

This book treats of the training of athletes, of children in ordinary schools and in those for the blind, deaf-mute and other defectives, of the availability of exercise for the relief of deformities, and in the treatment of visceral diseases. The dangers of over-strain are carefully considered. Special methods of exercise such as massage are also described in detail.

A Manual of the Practice of Medicine. By A. A. Stevens, A. M., M. D., Professor of Therapeutics and Clinical Medicine in the Woman's Medical College of Pennsylvania, Lecturer on Medicine in the University of Pennsylvania. Tenth Edition, Revised. 12mo of 629 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1915. Flexible Leather, \$2.50 net.

This is one of the very best works on practice—we were about to say “on a scale intermediate between the quiz compend and the monumental treatise”—but will omit the qualification. That it should reach a tenth edition is good evidence of its appreciation by the profession. Its small size is somewhat deceptive for the publishers' art has resulted in a degree of compactness which gives, at first glance, the impression of much less matter than is actually presented.

Quiz Compend—Chemistry. Inorganic and Organic, including Urinary Analysis, by Henry Leffmann, A. M., M. D., Philadelphia. P. Blakiston's Son & Co., Philadelphia. 241 pages, illustrated, \$1.00.

This is the sixth edition of the favorite, brown covered series. It is unnecessary to speak of the value of these works for medical students nor to point out the fallacies of the argument against condensed manuals that will prepare students for the examinations required of him. So long as the examination system is retained, such books must exist. Nor do we need to remind the graduate physician, required to pass an examination for a license in another state, of the help rendered by such books. What we want particularly to mention is that such books have a value for one with no such ulterior motives. We would advise the physician who is rusty on chemistry, to buy

this book and read it carefully, thus refreshing his memory and bringing his information up to date.

The following interesting reports have been received at this office and are acknowledged with thanks. They may be referred to here or, later at the Grosvenor Library.

Report of the N. Y. State Veterinary College for the year 1913-14.

Year Book of the Pilcher Hospital for the period April 1-Dec. 31, 1914.

Municipal Ordinances, Rules and Regulations Pertaining to Public Health. Reprint No. 230 from Public Health Reports.

State Laws and Regulations Pertaining to Public Health. Reprint No. 200 from Public Health Reports.

International Health Commission, Rockefeller Foundation, first annual report, June 27, 1913-Dec. 31, 1914 (sic). This deals with the British West Indies, Egypt, Ceylon, Federal Malay States, Phillipines, Costa Rica, etc., the information having been obtained by personal representatives of the foundation on a tour.

Annual Report of the Department of Health, Buffalo, for 1914. As this publication has been distributed to the profession, we merely state that it is worth careful study, not only because it justifies a considerable amount of pride in a municipal department of the highest efficiency according to present standards but because the intelligent co-operation and support of the profession can aid greatly in securing further advance.

The Practical Medicine Series, under general editorial charge of Charles L. Mix, A. M., M. D., Chicago, published by the Year Book Publishers, Chicago, the price of the annual series of ten volumes being \$10.00.

Vol. 3, Eye, Ear, Nose and Throat, edited by Casey A. Wood, C. M., M. D., D. C. L., Albert H. Andrews, M. D. and Wm. L. Ballenger, M. D. 384 pages, illustrated, \$1.50 separately.

Vol. 4, Gynaecology, edited by E. C. Dudley, A. M., M. D. and Herbert M. Stowe, M. D. 234 pages, illustrated, \$1.35 separately.

This series has become the standard review of current literature.

New York and New England Association Railway Surgeons.

The twenty-fifth annual session will be held at Hotel Astor, New York City, October 21, 1915, under the presidency of Dr. W. H. Marcy, of Buffalo, N. Y. Railway surgeons, attorneys and officials, and all members of the Medical profession are cordially invited to attend. Dr. George Chaffee, Corresponding Secretary, 338 47th Street, Brooklyn, N. Y.

American Proctologic Society. Seventeenth Annual Meeting, San Francisco, June 21 and 22. The President, Louis J. Krouse, Cincinnati, in the chair. Officers elected for ensuing year: President, T. Chittenden Hill, Boston; Vice-president, Frank C. Yeomans, New York; Secretary-Treasurer, Alfred J. Zobel, San Francisco. The meeting for 1916 will be in Detroit. President's Address, "Retrospect and Prospect." By Louis J. Krouse, Cincinnati.

Dr. Krouse stated that nearly two decades had now elapsed since the organization of the American Proctologic Society, and that he recalled distinctly the great enthusiasm manifested by the members at their first meeting.

He called attention to the fact that there is now a fair enrollment of Fellows from widely scattered parts of the United States.

He believes that the medical fraternity has still need of a society like the American Proctologic Society, whose field of activity is limited to ailments located in the anus, rectum, and colon. This is evidenced by how the general practitioner generally handles such cases, and by their later referring them to the proctologist.

Dr. Krouse deplored the fact that the medical schools are so slow in establishing a chair of proctology, such as has been done in all of the important postgraduate schools of the country, where this important branch of surgery can be taught. He thinks, and advocates, that there should be a ward set aside in all the teaching hospitals where the student will be able to acquire a better knowledge of this specialty, and will then be better prepared to treat such cases intelligently.

Dr. Krouse said that he pointed with much pride to the fact that with one or two exceptions all the best text books by American authors on the subject of Diseases of the Anus, Rectum, and Colon, have been written by Fellows of the American Proctologic Society.

A Report of Proctologic Literature, from March, 1914, to March, 1915, by Samuel T. Earle, Baltimore.

In this review of Proctologic Literature Dr. Earle quotes freely from the following authors, giving the salient points from each of their papers:

Chas. H. Mayo, M. D., Rochester, Minn., (Surgery, Gynec-

ology, and Obstetrics, Vol. XVIII, April, 1914, No. 4, page 401), "Resection of the Rectum for Cancer with Preservation of the Sphincter."

Daniel Fiske Jones, M. D., Boston, Mass., (Boston Med. and Surg. Journal, Vol. CLXXI, July-Dec., 1914), "Cancer of the Rectum."

Joseph Weiner, M. D., New York City, N. Y., "A New Operation for Stricture of the Rectum or Sigmoid."

P. Lockhart Mummery, F. R. C. S. Eng., London, Eng., (The Lancet, Vol. 1, 1914), "Pain After Operation For Internal Piles, and Its Prevention."

P. Lockhart Mummery, F. R. C. S. Eng., and M. K. Joshi, M. R. C. S. Eng., L. R. C. P., London, (The Lancet, Feb. 13, 1915,) "Death from Strangulated Hemorrhoids."

E. Palier, M. D., New York City, N. Y., (New York Medical Journal, Jan. 23, 1915) "Hemorrhoids and Hyperchlorhydria."

Chas. Gordon Heyd, M. D., New York City, N. Y. (Surgery, Gynecology, and Obstetrics, 1914), "A Procedure for the Repair of Accidental Injuries to the Rectum."

Rectal Prolapse and Its Mechanics. By Wm. M. Beach, Pittsburgh.

The terms prolapse and procidentia are interchangeable as applied to a dislocated rectum downward on account of defective anchorage.

Dr. Beach feels assured that many of the victims of dyschezia could give a history of prolapsus in childhood.

He states that we are coming to think of prolapsus in terms of hernia, the verity of which must be determined from a consideration of the pelvic fascia and intra-abdominal pressure. He gives in detail the anatomical reasons for the causation of rectal prolapse.

Under the head of treatment he states that a number of surgical procedures have been devised and advocated for the restoration of the dislocated rectum; that they have seemed to succeed for a time, only to prove a failure later on. He mentions several of the procedures and gives his reasons for and against their employment. He gives also his operation of choice.

Cause of Dissatisfaction With Hemorrhoidal Operations. By Rollin H. Barnes, St. Louis.

The reason for dissatisfaction with the textbook methods in the operative treatment of hemorrhoids, is that they are based upon the fear of hemorrhage, and that pace has not been kept with modern surgical knowledge in regard to the control of this hemorrhage.

It is easier to take care of primary hemorrhage than of secondary bleeding such as may occur from a slough following

the ligature or the clamp and cautery operation, because the surgeon is not always at hand when the latter occurs.

In the methods of Dr. J. Rawson Pennington, (A. P. A. Trans., 1914), and the author, (A. P. A. Trans., 1912), a clean excision of the hemorrhoid is done, so that it requires only controlling the primary hemorrhage, for there is no slough. The tissues are injured as little as possible so that they will retain the greatest amount of resistance against infection. There is less pain in these open methods for we do not have the "confined infection" which is especially caused by the use of sutures and by injuries to the deeper tissues.

For the control of hemorrhage the author advocates the use of pressure. Also care should be taken of the bleeding vessel itself rather than a ligature should be tied around a mass of bleeding tissues, or they should be cauterized. He also advocates that advantage be taken of that muscular contraction which can be secured to the greatest extent by minimizing trauma. The rectal plug acts against this muscular contraction.

The author opposes the customary purgation in the preparation of the patient before operation. He prefers the cold enema as a means to clean out the lower bowel. He contends that the daily enema in the after-treatment does not result in constipating the patient but rather aids in securing regularity of bowel action.

Report of Case of Carcinoma of the Sigmoid: With Stereogram. Walter I. LeFevre, Cleveland.

Patient, male, age 55 years. Suffered with abdominal pain in the left iliac fossa for one and a half years. Complained of constipation, becoming gradually worse until a natural passage was impossible. Use of enemas resorted to but difficult to retain.

Stero-roentgenogram made by injecting Barium Sulphate emulsion (consisting of Barium Sulphate 6 oz., Pulv. Gum Tragacanth, 2 drams, Aqua, 40 oz.) This would start to be expelled when about 10 oz. was injected, but by repeated efforts 30 oz. was finally injected and retain long enough to get the pictures. Some of the emulsion passed to the upper end of the ascending colon; the transverse colon was filled; the descending partially filled; the sigmoid and rectum entirely filled. The pictures show the sigmoid loop bound down in the pelvis and almost occluded. Operation confirmed the findings. Condition hopeless. Patient died.

Emetin Hydrochloride in the Treatment of Amebic Dysentery. By Geo. B. Evans, Dayton.

Amebic dysentery is epidemic in tropical regions. It may become endemic by importation. Although various authors have contributed to a very comprehensive knowledge of the

disease, there still exists considerable confusion in the interpretation of those symptoms and signs which make for accurate diagnosis and prognosis.

Dysentery may persist for months or years after the amebic ulcerations have been healed, without amebiasis being present. It may exist in a mild or severe form.

A positive diagnosis can only be made by the aid of the microscope. The smears should be taken preferably from the ulcerations on the free border of the rectal valves.

The author believes that treatment by irrigation is a thing of the past. It has been supplanted by emetine hydrochloride hypodermically.

Diet and rest are very important in treatment.

The conclusions are that what quinine is to malaria, and mercury to syphilis, emetine hydrochloride, hypodermically, is to amebiasis.

The Present Status of Local Anesthesia in the Surgery of the Lower Bowel. By Louis J. Hirschman, Detroit.

Nowhere has the real value of local anesthesia been demonstrated more conclusively than in entero-proctologic surgery.

Dr. Hirschman employs local anesthesia in the surgical treatment of the majority of his cases of anal and rectal diseases, as well as in a small proportion of cases involving surgery of the colon. The results in both classes of surgical operations have been so satisfactory to both the patient and the surgeon that the author advocates with great earnestness the further employment of local anesthesia not only in the field of intestinal surgery but also in every branch of surgical activity where absolute unconsciousness of the patient is not a strict necessity.

The technique which Dr. Hirschman uses in his ano-rectal operations and in his work on the colon is given in detail.

Which is the Best Anesthesia to be Used in Anal and Rectal Surgery. By Wm. H. Kiger, Los Angeles.

Dr. Kiger was prompted to write this paper on seeing a statement in a recently published book on "Diseases of the Rectum and Colon" which read, "Spinal anesthesia has a very limited field of usefulness. Indeed one is hardly ever justified in using it in rectal work."

After a personal experience in over five hundred rectal operations without a single unpleasant result, the writer of this paper is constrained to differ from the text-book author, and is forced to the opinion that the latter has not given spinal anesthesia a fair trial, or that he, mayhap, did not use the proper agents.

Dr. Kiger called the attention to the ease of administration of spinal anesthesia; that it may be given without assistance of an expert anesthetist; that it saves time by doing away with

the delay incident on operation under a general anesthetic; that by its use the dangers of chloroform and ether are eliminated, as are also their after effects; that when it is employed there is no need to dilate the sphincters as all the operator has to do is to ask the patient to strain and the gut will easily protrude through the relaxed sphincters; and finally that it avoids shock.

He uses novocain or tropococain and gives in detail his technique for spinal anesthesia.

Further Observation on the Treatment of Pruritus Ani by Autogenous Vaccines. By Dwight H. Murray, Syracuse.

In making the fifth report of his original research work on Pruritus Ani and Pruritus Vulvae, Dr. Murray gave the results of the examinations concerning the etiology of twenty-one additional cases together with their treatment, complications, and present condition. He also reported further on the cases previously examined, treated, and reported.

Dr. Murray hoped that no reader of his papers on this subject imagined for a moment that he claimed that all of these cases made prompt and complete recovery with no relapses.

He believes that he is still justified in emphasizing the claim that most cases of Pruritus Ani and Vulvae are due to a local infection which may be benefited by treatment with autogenous vaccines.

Where he was unable to find streptococcus infection at the first bacteriologic examinations, this year when the patient had a slight relapse streptococcus fecalis was found. This gives additional evidence that infection may be present and yet the bacteriologic report not show it.

Even when we have the knowledge that it is a skin infection; that the phagocytic power of the blood is below normal for the infecting bacteria; and that the vaccine injections give the best and most lasting relief; yet we are still unable to give patient a definite statement as to the number of treatments or length of time necessary before improvement will begin. Nor are we able to assure them that no relapse will occur.

Six cases confirm the claim made in the fifth conclusion of his third report, namely: "The presence of skin infection with a local lesion begets an unfavorable prognosis for the of the pruritus ani by an operative procedure."

Three cases confirm the claim made in the sixth conclusion of his paper in 1913, namely: "The absence of a demonstrable skin infection with pruritus ani together with the presence of a local lesion will justify a favorable prognosis for the cure of the pruritus ani by an operative procedure."

Acute cases do not seem to obtain the benefit from the vaccine treatment that chronic local infections receive.

Dr. Murray noticed that three of his very severe cases re-

ceived little benefit during their course of treatment. He advised suspension of treatment and within a short time a marked improvement occurred in the severity of the pruritus and later the patients reported that the itching had practically ceased.

He states that he can account for this only upon the hypothesis that they were in a continuous negative phase while the vaccine was being administered, and that after discontinuing it they came into a positive phase. This might be taken as evidence that vaccine may be continued too long or the doses given too frequently.

The author says that in all the patients that he has examined and treated during the past year, it is remarkable that the cases of fistulae, hemorrhoids, ulcer, cancer, diseased crypts, hypertrophied papillae, constipation, and stricture gave no history whatever of having a pruritus ani. Yet authors still give these as causes. This confirms his statement in the second conclusion of the second report, namely: "Even when there is a discharge of pus or other moisture on the perianal skin it is not the actual cause of pruritus ani unless there is a streptococcic or other infection of the skin. They may exist together, but if so it is a coincidence."

This proof should satisfy the most skeptical and is an investigation that all can make without trouble.

The relapsed cases that returned for treatment have responded more readily to the vaccine treatment than when they first came, and some who have not returned report that the itching is easily controlled.

Results of treatment by autogenous vaccine still continue to be the most satisfactory of any Dr. Murray has yet used. Patience and perseverance are necessary on the part of both the patient and the physician.

Peritoneal Adhesions and Intestinal Stasis. By Jas. A. MacMillan, Detroit.

The author of this paper states that the interest of the medical profession in this subject was awakened by the work of Mr. Arbuthnot Lane, of London, England; that there is a demand for operative interference in many cases of intestinal stasis, but for an operation less radical than that of extirpation of the colon; that although in the majority of instances they are not causative factors, peritoneal adhesions in some instances produce intestinal stasis.

He further states that there are two points in diagnosis which the paper is intended to emphasize: (1) The importance of pain and tenderness. (2) That the offending adhesion will be found to belong to a few definite types.

Constipation With Special Reference to Its Treatment. By Lewis H. Adler, Jr., Philadelphia.

Dr. Adler called attention to the fact that the intestinal track is the chief sewer way of the body, and as such required as much attention as the plumbing in one's dwelling; that the term "Constipation" is a relative one and the line of demarcation between what is physiologic and that which is pathologic, in a given case, can only be drawn by a thorough study and knowledge of the individual; that the standard of health in one person, whose bowels move only on alternate days may be as perfect as in the individual who has two normal bowel actions per diem; that one of the chief etiologic factors in producing, or inducing, this malady is the neglect, frequently repeated, to respond promptly to the calls of nature; and to the pernicious practice which Americans, at least, have fallen into, of resorting to the taking of purgative medication.

Attention was called to the contra-distinction between obstipation and constipation. In constipation we have to deal with functional diseases of some portion of the intestinal track; while in obstipation there is normal functional activity, but there is some deformity, growth, constriction, flexion, or foreign body in the intestinal canal which offers a mechanical obstruction to the passage of the fecal current. He stated that these distinctions must be borne in mind, for while they may present similar symptoms, the treatment is entirely different.

The chief object of the paper was to lay stress upon the treatment of constipation by other than medicinal means.

The author advises that all conditions, general or local, which interfere with the health of the individual, should be removed; and that diet and hygiene should be given careful consideration. He also advises that where massage is given it should be carried out by the physician himself and not by a masseur.

The Ultimate Nervous Results of Acute Angulation of the Sigmoid, and the Consequent Fecal Stasis. Wm. H. Axtell, Bellingham, Wash.

Dr. Axtell divides the nervous end results into three general types: (a) Severe type: Including acute mania. (b) Moderately severe type: Including melancholia, chronic sciatica, chronic lumbago, tropic corneal ulcers. (c) Mild type: Including eczema, the apathetic, the neurasthenic.

He was not prepared to say whether or not the angulations found were the cause of the fecal stasis, or the stasis the cause of the acute angulation. These conditions, however, were found in all of those cases, and the nervous conditions which were produced disappeared upon correction of the angulation and stasis. Dr. Axtell's conclusions are:

(1) Many cases treated as typhoid fever are simply cases of constitutional and systemic infection from putrefactive toxins of the alimentary canal.

(2) If the true condition were recognized at the outset, and if the colon were thoroughly cleansed of the soil for the growth of typhoid bacteria, there would be fewer cases of typhoid fever.

(3) Physicians do not as a whole examine the rectum and colon with the same degree of precision that they do other parts; they do not have a true appreciation of its importance; nor do they comprehend what persistence is required to empty the colon.

(4) We are all too much inclined to cling to precedent, rather than to act according to the conditions found.

Notes on Rectal Fistula. By J. Rawson Pennington, Chicago.

The etiology, conformation and classification of fistula as presented in our textbooks is not satisfactory.

The rectum extends from the termination of the sigmoid, at a point opposite the middle of the third sacral vertebra, to the pectinate line. The anal canal extends from this line to the anus. A fistula, then, with the external opening in the anal canal should be classified as an anal-fistula, or fistula-in-ano. A fistula with the internal opening in the pectinate line, or junction between the rectum and the anal canal, partakes of both of these structures, the rectum and anal canal, and should be known as an ano-rectal fistula. While those cases with the internal opening in the rectum should be known as rectal fistula. Complex, compound, horse-shoe, and other so-called varieties of fistula are simply expressions of complexity, position, or shape, of one or the other of the foregoing divisions, or a combination of them.

Methods of Treatment. Many methods have been proposed for the treatment of fistula. The author desires to submit herewith another which he believes to be far more important than any as yet presented. The Preventive Treatment. All methods may be classified under three general heads, viz.: the preventive, palliative, and curative. Under the former may be considered the prophylactic and the abortive treatment. Under the latter the injection and the operative treatment.

(a) Prophylactic Treatment.—It is said that an ounce of prevention is worth a pound of cure. This injunction is as apropos in the treatment of fistula as in the treatment of any other malady. A complete history and careful examination usually elicits the fact that practically every individual who has fistula has or has had hemorrhoids, cryptitis, fissure, pruritus ani, proctitis, or some other form of curable rectal disease. These conditions favor the invasion of the peri-rectal tissues with pyogenic organisms, which is usually followed by an abscess and fistula. Hence, if people were educated to keep their rectums in a healthy state, and did so, fistula would become less frequent. Since the number of cases may be reduced by

education, it becomes our duty as proctologists to launch a campaign for the prevention of this loathsome affliction—Fistula.

(b) Abortive Treatment.—The time to abort fistula is during the infection or abscess stage. If the abscess is opened early and the pus allowed to escape, and the abscess wall is not interfered with, in any way with instruments or drugs, but the cavity drained freely, and gently filled with subnitrate of bismuth ointment, and this treatment repeated every two, three or four days according to the indications fistula will, as a rule, be aborted.

Fecal Abscess in Pouch of Douglas, Following Typhoid: Report of Case. By Alfred J. Zobel, San Francisco.

The author of this paper stated that for the past thirty years very few cases of fecal abscess have been reported in the literature. Only one of the more recently published text books of surgery gives even brief mention of the subject.

A fecal abscess is distinctly different from an abscess in which the pus has been so tainted by a growth of colon bacillus that from the odor it may be mistaken for fecal matter.

It may occur in connection with any portion of the intestine, and originate either externally or from within. When it originates without it may subsequently burst into the gut, empty its purulent content, and have it replaced wholly or in part with fecal matter.

A fecal abscess which originates from within the gut usually results from a slow, progressive ulceration of the mucosa, due either to general conditions, such as typhoid fever, dysentery, tuberculosis, or cancer, or to local causes, such as chronic intestinal catarrh, stricture, a hard fecal accumulation, or a foreign body.

The writer of this paper reports a case of fecal abscess which not only filled the cul-de-sac of Douglas, but also had invaded the tissues between the rectum and the vagina. The patient, a woman of forty-two years had had a miscarriage eight years previously, and was told at that time that some kind of a swelling could be felt in her rectum. However this gave her no trouble then, nor subsequently, and it had been entirely forgotten. When her present trouble began, two and a half months after an attack of typhoid fever, the history of this former condition complicated the diagnosis. On digital examination a large, smooth, immovable, brawny mass, beginning about $2\frac{1}{2}$ c. m. above the internal sphincter, and extending beyond reach of the finger, was felt bulging from the right-lateral and anterior sides of the rectum. The mucosa was freely moveable over it. No sign of fluctuation could be elicited. No particular pain was caused by deep pressure. The temperature and pulse rate were normal. It had been aspirated

through the rectum by her physician, and a slightly turbid fluid had been withdrawn. The mass began to swell into the vagina, and in two days so occluded the passage that it almost prevented the entrance of the examining finger beyond the portal. Slight fluctuation was then felt. There was severe rectal pain. The temperature was still normal; the pulse 90. An exact diagnosis was not made before the operation. An incision was made through the postero-lateral vaginal wall. Upon blunt dissection a tense sac presented. When this was punctured the contents gushed out in a thick sluggish stream which kept flowing for some little time. From its strong fecal odor and brownish-yellow, lumpy appearance it apparently consisted wholly of semi-liquid, mushy feces, similar to what is found in the lower end of the ileum and cecum. Nearly two pints of this foul material was evacuated. Fecal drainage ceased entirely eight hours after the abscess was opened. The turbid discharge which remained rapidly decreased in quantity and in less than four weeks after the fecal abscess was evacuated, the wound was completely healed.

Dr. Zobel said that although a fecal abscess is met with so rarely the possibility of it being present should be taken into consideration in the differential diagnosis of obscure intra-abdominal tumors. He concluded by quoting from Fenwick: "Where there is a localized abdominal swelling, immovable by the respiration or by a moderate amount of pressure of the fingers; whose size and shape alters when diarrhoea occurs; in which light percussion gives a tympanitic, and a more forcible stroke a dull sound; or in which an emphysematous sensation is communicated to the fingers, or a gurgling sound produced by percussion; it will be probably of fecal origin; and this more probably when there is a history of anything apt to produce ulceration.

Ischiorectal Abscess in Nine Day Old Infant: Report of Case.

By Alfred J. Zobel, San Francisco.

The abscess was first noticed on the ninth day after the birth of the child. No cause could be discovered for its formation. It was incised on the twelfth day without any anesthesia. It was curious how the abscess cavity, which was quite large, filled up so rapidly, complete healing taking place at the end of a week.

Report of the 40th Annual Meeting of the Alumni Association Medical Department, University of Buffalo.

The 40th annual meeting of this association, which was duly incorporated in 1875, took place Tuesday to Friday, June 1 to 4, 1915. All sessions with the exception of the annual alumni dinner, the Class and Frat reunions, were held in the

college building. In point of attendance, importance and timeliness of subjects discussed at the scientific sessions, in interest and enthusiasm displayed by the alumni, the entire meeting was very successful.

SCIENTIFIC PROGRAM

Wednesday Morning, June 2nd.

Doctor John L. Butsch, Assistant Professor of Pharmacology, gave an interesting paper on **The Process of Testing Kidney Function by the Retention Method**. He outlined this method showing its advantages in the clinical investigation of diseases of the kidney and demonstrated the procedures used.

Dr. F. H. Pratt, Prof. of Physiology, who has in his three years' connection with our school proved his ability as a teacher and investigator, and who has also studied very extensively the problems of medical pedagogy, discussed **Modern Principles in Medical Teaching**. He stated that the main purpose of a medical school must center in the student, and the student should be judged first by the criterion of industry. The great advance made generally in this country through higher entrance requirements promises to have one regrettable feature, in that the more mature student, whose attitude toward his work is so often a stimulus and fine influence, is liable now and in the future to be ruled out, owing to the obstacle of the year or two of preparation. Industry and high purpose must be fostered in the younger class of entering students by early insistence on standards.

Method of work and thought should be taught, as well as subject matter. To get the student to grasp principles and to solve problems should be the end of our teaching—a requirement as a rule very different from the sort of studying he has been accustomed to. The teacher should endeavor constantly to lead the student to think hard, and needs to verify constantly the results of his teaching. Inculcation is not enough. Verification is equally important.

Unless the teacher meet the student in the presence of nature—the actual phenomena of health and disease—the teaching is liable to lack an indispensable element. To make this possible, a large staff is needed, small sections, and pedagogical training.

Medical text-books are, as a rule, unfitted by their bulk and arrangement for class-room work. A great need in medical education is concise texts suited to the needs of systematic assignment of lessons and of recitation. Such generally do not exist.

We do not make the use of books a sufficient end in the training of students. Only the graduate who can use a library, and can refer to the literature of a subject, can be

expected to progress in medicine. Such ability should be made a prerequisite to graduation.

Endowment of all higher education is becoming increasingly necessary with the rising standards of equipment and teaching. This is especially true of medical schools. Effective and smooth-running organization, as simple as circumstances permit, is equally necessary. The student must be judged in the light of elaborate and carefully preserved records, and likewise must be known as a man to many of his teachers. As the institution is judged by the student product, so must the fruits of the student's industry and character be weighed by every means in our power before he becomes a product.

Our fellow alumnus, Dr. Raymond F. Metcalfe, 1900, Major Medical Corps, U. S. A., who has been in the service for the past decade, gave a very interesting discussion of the **Organization of the United States Army with Special Reference to the Medical Corps**. He described the organization of the army in time of peace and war, outlining fully the auxiliary forces and the various units of which the army is made up. He detailed the equipment of a field hospital and the question of military sanitation and military surgery, the Red Cross service, and the different duties of the medical officers in relation to sanitation, care of the sick and wounded, the drill of hospital corps, and the treatment of epidemic in towns situated in the war zone. He mentioned that there were a few vacancies in the medical corps and hoped that some of our fellow alumni might fill same as there are now about a dozen U. of B. graduates in the service.

Dr. W. L. Moss, Internist to the State Institute for Malignant Diseases reported a **Study of over 200 Diphtheria Bacillus carriers and their relations to the community**. This was based upon investigations carried on in the city of Baltimore during a diphtheria epidemic and he showed that the presence of diphtheria bacillus (the non-virulent type) does not render the carrier a menace to the community. He cited statistics to prove his contention. Dr. William G. Bissell, '92, in discussing the paper, took exception to the guinea pig test for virulency of the Diphtheria organism.

In demonstrating **Radium and Radioactive Substances**, Dr. Otto Buseck, of the Radium Limited, New York City, showed specimens of pitch-blend, Carnotite and Fergusonite, the principal ores from which radium is extracted. He described the method of extraction and the process resulting in the formation of radium chloride, which is converted into the bromide and sulphate,—the by-products being the radioactive substances. He showed radium emanations, an activator which can be used to charge water, radium compresses,

radium gloves and radium linen, describing their therapeutic uses in every instance. In a small lead tube he had a glass vial containing 15 mg. of radium sulphate valued at about \$20,000.

Wednesday Afternoon, June 2nd.

The **Annual Alumni Oration** was given by Dr. William House, '95, who came from Portland, Oregon, to attend our meeting. Dr. House is Assistant Professor of Neurology and Psychiatry in the University of Oregon and is a force and factor in medicine on the Pacific Coast. He is also one of our most enthusiastic and loyal alumni. His topic was **Cerebral Localization** which he treated very practically and clearly always having in mind its value to the general practitioner. He described the blood supply to the brain, and showed how the different lobes are supplied with the significance of the changes resulting from the circulatory disturbances in the various parts. He cited a novel method of remembering the position and relation of the cranial nerves,—this method being originated by the doctor himself. Such topics as Cerebral Thrombosis, Apoplexy, Brain Tumors, were fully and clearly dealt with, both as to formation and localization. Dr. James W. Putnam, '82, discussed the paper.

Thursday Morning, June 3rd.

Prof. House gave an unusually interesting **Neurological Clinic** in which he demonstrated, side by side, a case of Tabes and Spastic Paraplegia. He discussed the luetic origin, the pathogenesis in the respective portions of the cord, the symptomatology resulting therefrom and laid special stress on the diagnostic features which differentiated the respective diseases. A case of motor aphasia was presented and discussed with special emphasis on alcohol as a factor in arterio-sclerosis of the cerebral vessels. The various possibilities in the lesions producing the aphasias were fully stated before coming to the definite condition in this case. A case of haematomyelia was then presented, the history read, the lesion discussed with its symptoms, a differential diagnosis made between this condition, spinal hemorrhage, fracture, dislocation and tumor. Dr. George A. Sloan, '98, provided the cases from his service at the Erie County Hospital.

Dr. George W. Crile, the well-known surgeon and investigator, and Professor of Surgery in the Western Reserve University, whose researches in surgical shock, internal secretions and allied problems have been of the greatest service to modern medicine, gave an intensely interesting and illuminating surgical diagnostic clinic in which he demonstrated cases of goitre of different kinds and severity. He dis-

cussed the etiology, the symptomatology, the various diagnostic features of each case, commenting on the prognosis, and showed the relation between fever and its effects and hyperthyroidism and its results. The material for clinic was arranged by Dr. Fred Parmenter, '03.

Thursday Afternoon, June 3rd.

Prof. Samuel J. Kopetzky, of New York City, whose investigations in the problem of Meningitis and its otological relations have placed him among the leaders in his specialty, opened the afternoon session with a paper on **The Interrelationships of General Medicine and Surgery to Otology, with special reference to Intra-Cranial Diseases.** He showed the importance of the study of the cerebro-spinal fluid, the relation of leucocytosis to both ascending and descending polynuclear leucocytes, and the value of careful study of the symptoms alongside of laboratory findings. The paper was profusely illustrated with lantern slides, clinical charts and tables formulated from his extensive study and experience in Otology.

Dr. Joseph C. Beck, Prof. of Oto-laryngology, University of Illinois, Chicago, an authority in his special field of activity, gave a **Borderline Clinic** in which he presented a case of goitre removal in which patient was aphasic on turning head to left, but no speech defect with rotation to right. The symptom was due to pressure of the enlarged thyroid on the left recurrent laryngeal nerve, the operation resulting in complete cessation of symptom; a case of facial palsy (traumatic in origin) in which anastomosis of the seventh nerve to the hypoglossal was successfully performed; a post-radical facial palsy not operated; a case of cancer of the tongue involving the right half, operated on seven years ago with no recurrence and with practically no defect in speech discernible; a case of post-nasal fibro-sarcoma of seven years' duration extending from the left side of the naso-pharynx to the right in which patient refused operation; a case of tubercular cervical adenitis extending from the mastoid down to the opening of the thorax, successfully operated upon; a case of calcareous brain tumor in the left temporal region with little localizing symptoms, diagnosed by a radiograph plate which was shown and a case of chronic non-suppurative labyrinthitis, after which Prof. Beck showed a series of carefully prepared lantern slides illustrative of the various borderline operations and the steps and surgical procedure of same. The clinic was arranged by Dr. Chester Cott, '08.

Dr. William House discussed papers of Professors Kopetzky and Beck, after which a special vote of thanks was given the speakers by our association.

Dean Herbert U. Williams, '89, Professor of Pathology and Bacteriology gave a most interesting demonstration of **Serum Reactions used in Modern Diagnosis**. The principal types of reactions were demonstrated in large cylinders so as to be plainly visible; precipitins; hemolysins, agglutinins all prepared by Miss Jacobs, also the phenomenon of anaphylaxis on guinea pigs, and Malone's recently published modification of the Abderhalden principle, the latter by Dr. Nadina R. Kavinoky, '10.

Demonstrations in Physiological Laboratory.

In his laboratory Prof. F. H. Pratt gave an interesting **Physiological Demonstration** designed to show, first, a very simple method of demonstrating to a class the auricular and ventricular beat of a small, excised mammalian heart; secondly, to illustrate a possible method of cardiac nutrition from the interior of the heart cavities.

Defibrinated blood is introduced into the right ventricle through a cannula tied into the pulmonary artery, the venae cavae having been ligatured. If the open cannula is now supported in an upright position, and the heart kept warm by dipping occasionally into warm normal salt solution, beating of right auricle and ventricle may be maintained for several hours. The preparation may be readily handed about among a class of students. Both block and fibrillation may often be observed under this method.

It is presumed that the heart walls, especially when thin, as in a small heart, may, under conditions of greatly decreased peripheral resistance, receive effective nutrition, by this means, through the endocardium; partly by direct entrance of blood through the Thebesian foramina, partly by diffusion of the soluble non-protein constituents through the endocardial lining.

ANNUAL BUSINESS MEETING.

The annual business meeting was called to order on Wednesday afternoon by President, Dr. George F. Cott, '84. In submitting the annual report of the Executive Committee, Dr. L. Kauffman, Chairman, stated the various activities undertaken during the past year in developing the spirit of loyalty and enthusiasm among the alumni of the Medical and other departments of the University. There were organized two new District Branch Alumni Associations, viz., the Chautauqua District Alumni Association at Jamestown on November 18, 1914, comprising the alumni of all departments resident in the counties of Chautauqua, Allegany and Cattaraugus of New York State, and the adjoining counties in northwestern Pennsylvania, and the Central and Northern New York Alumni Association at Syracuse, N. Y. on February 10th, 1915. In addition both the Interstate Alumni Association and the Rochester

District Alumni Association held their second reunions respectively at Elmira and Rochester.

For the first time in the history of our University the Alumni of all departments gathered together on last University Night (February 22d, 1915) and organized THE ASSOCIATED ALUMNI OF THE UNIVERSITY OF BUFFALO at a dinner held at the Hotel Statler. It was unanimously decided to form a permanent organization of all the alumni of the U. of B. and make **University Day** a practical demonstration to our alumni and the citizens of Buffalo and vicinity of what a real force and power our University may be.

With reference to the Alumni catalogue the committee reported that the catalogue was compiled by Miss Emma L. Chappell, well known to our members for her twenty years' activity as college secretary, and is now in the printer's hands. The publication, however, has been deferred as it was deemed advisable to incorporate therein the Constitution and By-Laws of our Association to be adopted at this meeting. In addition the committee has compiled a new card index of the entire membership of this association. The expense of the catalogue and card index is being defrayed from a fund raised by an equal voluntary contribution from a number of our alumni, a list of whose names will be sent with the catalogue which will surely be delivered in October.

For the furtherance of the alumni activities the following resolutions were recommended by the Executive Committee and unanimously adopted:

1. That the Alumni Association of the Medical Department respectfully suggest to the Associated Alumni, the Faculties, and Council of the U. of B. to make our "University Day" an event in our University's life each year. That the public address in the morning be continued, that the students of all the departments be jointly entertained at a luncheon in the afternoon to be given by the combined Faculties, thereby rendering possible the development of alumni spirit during the student days, and that the annual dinner under the auspices of the Associated Alumni round out the day's festivities.

2. That your executive committee be empowered to organize in conjunction with the other departments and under the auspices of the Associated Alumni a METROPOLITAN ALUMNI ASSOCIATION, comprising the alumni of all departments residing in New York city and vicinity.

3. That the Executive Committee be empowered to arrange for the settlement of all outstanding dues of our members, if such be deemed feasible the coming year.

4. That steps be taken to establish the ALUMNI FUND as provided in the newly adopted constitution.

CONSTITUTION AND BY-LAWS

The amended constitution and by-laws were adopted and contain such provisions as will permit our Association to assume larger and more important activities and afford each and every alumnus an opportunity to become actively interested in his Alma Mater. The management of the association is delegated to a Board of Directors consisting of the president, the five vice-presidents, secretary, treasurer, the Executive Committee and Board of Trustees. As at present, the executive committee has direct charge of the general welfare of the association and consists of a chairman and of two members elected annually by the association, the president, secretary and treasurer ex-officio and one member elected from the faculty. Provision is also made for the establishment of an **Alumni Fund** which is to be raised and managed by the Board of Trustees. The control of this fund is at all times vested in the association and the expenditure of same is to be determined by the association at an annual meeting,—the interest only to be used for such purpose or purposes as will be decided upon by the association for the benefit of our Alma Mater.

The officers for the ensuing year were elected as follows:

President, Lesser Kauffman, '04, Buffalo, N. Y.

First Vice-president, Charles D. Aaron, '91, Detroit, Mich.

Second Vice-president, Archer D. Babcock, '93, Syracuse, N. Y.

Third Vice-president, James E. King, '96, Buffalo, N. Y.

Fourth Vice-president, Jane W. Carroll, '91, Paterson, N. J.

Fifth Vice-president, Lee A. Whitney, '01, Rochester, N. Y.

Secretary, Julius Richter, '04, Buffalo, N. Y.

Treasurer, Frank E. Brundage, '09, Buffalo, N. Y.

Trustee for Five Years, George F. Cott, '84, Buffalo, N. Y.

Executive Committee—Wm. F. Jacobs, '08, Chairman; Edith

R. Hatch, '06; Wm. G. Bissell, '92, all of Buffalo.

Next year our officers will be elected by ballot with two tickets in the field. The opportunity will thus be afforded to every Alumnus in good standing, i.e. who has paid his dues to date, to vote by mail if unable to attend the annual business meeting in person.

During the past year we had thirty-five deaths in our ranks as per **Necrology List** compiled by Secretary Richter.

Class of

1851 JOSEPH O. ALLEN, died in Fayette, Ohio, May 20th, 1915. Age 85.

JUSTIN E. ELLIOTT, died in Ardmore, Pa., April 8, 1915. Age 87.

1860 JOHN E. BRADY, died at Grand Rapids, May 18, 1914. Age 72.

- O. B. WEBSTER, died in Vassar, Mich., April 30, 1914.
Age 87.
- 1864 WILLIAM H. GAIL, died in Buffalo, February 6, 1915.
Age 74.
- JOHN MASON BROWN, died in Westfield, N. Y., July
12, 1914. Age 72.
- 1866 HENRY W. CALDWELL, died in Pulaski, N. Y., Feb.
24, 1915. Age 73.
- ROBERT T. MENZIE, died in Caledonia, N. Y., Apr.
20, 1915. Age 81.
- 1869 JOHN H. TAYLOR, died in Holley, N. Y., Sep. 23, 1914.
Age 70.
- 1870 STUART H. BENTON, died in Brooklyn, N. Y., Mar. 2,
1915. Age 69.
- 1871 JOHN E. McTAGGART, died in Detroit, Mich., May 12,
1915. Age 76.
- OSCAR S. PRATT, died in Buffalo, N. Y., July 25, 1914.
- 1873 ANDREW J. JACKSON, died in Mattawan, N. J., Nov.
17, 1914. Age 72.
- 1875 WILLIAM L. ALLEN, died in North Tonawanda, N. Y.,
Feb. 17, 1915. Age 67.
- FREDERICK C. BEALS, died in Salamanca, N. Y.,
July 25, 1914. Age 62.
- 1876 EDWIN T. M. HURLBUT, died in Yountville, Cal., Apr.
14, 1915. Age 86.
- 1877 EDWARD ECKERSON, died in Denver, Col., Dec. 14,
1914. Age 61.
- CHARLES SHUPE, Died in Attercliffe Station, Ont.,
May 6, 1915. Age 68.
- 1878 DANIEL E. FULLER, died in Hastings, Mich., May 12,
1915. Age 58.
- 1879 FLOYD B. PARKE, died in Elmira, N. Y., Oct. 9, 1914.
Age 58.
- 1881 CHARLES B. SCOTT, died in Knoxville, Tenn., Jan.
27, 1915. Age 57.
- 1881 ALBERT M. COOK, died in Pasadena, Cal., Aug. 16,
1914. Age 59.
- 1884 WILLIAM A. OLIVER, died in Canandaigua, N. Y.,
Apr. 6, 1915. Age 67.
- RANSOM F. ROWLEY, died in Portville, N. Y., Aug.
6, 1914. Age 57.
- 1887 EUGENE A. SMITH, adjunct professor of clinical sur-
gery in his Alma Mater; attending surgeon to the
Buffalo Hospital Sisters of Charity; consulting sur-
geon German Deaconess Hospital, Riverside Hospital,
Woman's Hospital; died at his home in Saranac Lake,
N. Y., Aug. 9, 1914, from pulmonary tuberculosis.
Age 49.

- 1888 CLAYTON A. BUTTON, died in Holland, N. Y., Feb. 24, 1915. Age 61.
- 1890 FREDERICK E. McCLELLAN, died in Canandaigua, N. Y., Mar. 27, 1915. Age 46.
- WILLIAM L. HUNTER, died in Brooklyn, N. Y., Apr. 22, 1915. Age 65.
- MATTHEW J. O'CONNELL, Niagara University, died in Buffalo, N. Y., Aug. 4, 1914. Age 52.
- 1893 WILLIAM H. ANNOWSKI, died on his yacht near Crystal Beach, Ont., Aug. 1, 1914. Age 61.
- 1894 EDWIN E. KOEHLER, Niagara University, died in Buffalo, N. Y., Jan. 2, 1915. Age 44.
- HENRY OSTHUES, Niagara University, afterward professor of anatomy in his Alma Mater; died in Brooklyn, N. Y., Apr. 4, 1915. Age 46.
- 1898 CHARLES B. BRAMAN, died in Clifton Springs, July 4, 1914. Age 53.
- 1903 FRANK JONES, died in Niagara Falls, N. Y., Aug. 4, 1914. Age 38.
- 1909 EDWARD D. CLARK, died in Syracuse, N. Y., Feb. 13, 1915. Age 27.

CLASS REUNIONS.

The Class Reunions took place on Wednesday evening, June 2d. The Class of 1870, in charge of Dr. George E. Blackham of Dunkirk, N. Y., held its dinner at the Hotel Statler. Dr. Charles Cary arranged for the gathering of the class of 1875 at the Buffalo Club. The class of 1880 dined at the Hotel Statler, thirteen members of the twenty-five living attended and credit for the success of this gathering is due to Dr. Benjamin H. Grove. Dr. Edward Clark was chosen permanent secretary. Under the direction of Dr. Thomas F. Dwyer, the class of 1885 held its reunion at The Genesee and elected Dr. Jacob Goldberg permanent secretary. The class of 1890 held its 25th reunion at the Buffalo Club with Dr. J. F. Whitwell as master of ceremonies; Dr. Burt C. Johnson was elected permanent secretary. The banner dinner in point of attendance and enthusiasm was that of the boys of 1895,—Drs. Charles R. Borzilleri and John H. Daniels assembled 24 classmates at the Hotel Statler. Dr. Borzilleri was made permanent secretary. Drs. George W. Gorrill and James H. Carr managed the reunion of the class of 1900 which was held at the Hotel Lafayette, Dr. Gorrill being elected permanent secretary. The class of 1905 under the leadership of Drs. D. C. McKenney and Isaac Sernoffsky held its reunion at the Touraine Hotel. The members of the class residing in Buffalo entertained their out-of-town classmates with an attendance of 23. The idea of the in-town men entertaining their out-of-town classmates is a good suggestion for future class reunions. Dr. John

N. Flannery was elected permanent secretary. The baby reunion class (1910) had a theatre party for 14 at Shea's followed by a supper at the Hotel Statler. This class decided to offer a cup upon which is to be inscribed the name of the class having the largest attendance at the reunion each year. Dr. Clayton W. Greene was elected permanent secretary. The classes of 1894 and 1904 held their annual reunion as agreed last year.

THE ANNUAL DINNER.

The annual dinner of our association which has become the social event of our meeting took place on Thursday evening, June 3rd, at the Hotel Statler. The attendance was over 200, the largest in our history. Our guests of honor were Drs. Joseph C. Beck of Chicago and Samuel J. Kopetzky of New York City. After a most excellent repast which was thoroughly enjoyed by all, the retiring president, Dr. George F. Cott, '84, introduced as toastmaster of the evening Dr. Thomas H. McKee, '98, and known to us all as "Tom McKee." Dr. Cott in the course of his remarks called to our attention the value and importance of alumni loyalty and stated what the graduates of other institutions had done for their Alma Mater. With the changing times he thought our alumni were showing greater interest and enthusiasm in Alma Mater from year to year. To dilate on Tom McKee's qualifications as toastmaster would require a volume. Suffice it to say that he acquitted himself in his usual graceful manner introducing each speaker fittingly. The toasts of the evening were directed largely to two purposes, viz., the retirement of Dr. Peter W. Van Peyma, '72, from the teaching of obstetrics and the consideration of the prospective **Alumni Fund**. Dr. James E. King, '95, under the caption "Our Nestor in Obstetrics" spoke very feelingly and eloquently on Dr. Van Peyma's ability as a teacher and the services rendered to the students of the past thirty years or more of his teaching as well as his splendid attainments in practical obstetrics. Special emphasis was put on the **Obstetric Conference** at which Dr. Van delighted all who were privileged to attend same for who of us can forget the noble naturalness as well as the simple directness used by our retiring master teacher in conducting this course? In responding, Dr. Van Peyma gave some of his "Observations and Recollections" whilst a student in his Alma Mater as well as in the clinics of Vienna, Dresden, Berlin and Leipsic, how the teaching of obstetrics had changed from didactic to clinical and the great pleasure it afforded him to impart knowledge to us. The class of 1915 through its President Dr. Dan S. Bellinger, presented a picture of Dr. Van Peyma, to the University bearing the following inscription:

Peter W. Van Peyma, M. D., 1872.
Teacher and Clinical Professor of Obstetrics
1890-1915, when he retired.
Presented by the Class of 1915
In appreciation of his attainments
In the Practice and Teaching of Obstetrics.

Dean Herbert U. Williams accepted this picture on behalf of the faculty, in an original poem.

The prospective **Alumni Fund** was discussed by Drs. Daniel P. Murphy, '02, of Elmira, N. Y., and Lee A. Whitney, '01, of Rochester, N. Y. "Dan" Murphy very eloquently directed our attention to the present needs of our Alma Mater and claimed that it was the duty of the Alumni to assume responsibility for the institution from which they graduated. He urged the raising of the Alumni Fund to which every alumnus should feel duty bound to contribute, for surely all owe more to the University than was paid to it in tuition. Dr. Whitney gave some very practical suggestions on the establishment of the fund and advised the following methods:

1. The payment of the contribution at one time; 2. The payment of one's contribution in annual installments, or, 3. An annual contribution by each alumnus of such amount as can be conveniently given. The latter will appeal to the younger men as it will permit them to increase their contribution if so desired with their increasing incomes.

The humorous address of the evening and yet one containing much homely philosophy was given by Dr. William House, '95, of Portland, Ore., who participated so largely in the general success of our meeting. The subject of his toast was "Medicine in the Wild and Woolly West." The Doctor cited many humorous experiences in his practice and teaching of medicine and showed that the status of our confreres on the Pacific coast is equal to that in the East. Singular as it may seem, the per capita proportion of physicians to the population is fully equal to that in the East. For the benefit of those who contemplated attending the Panama-Pacific Expositions at San Francisco and San Diego, Dr. House discussed the several routes of travel giving a very succinct and practical description of each.

Our Alumnae to the number of thirty or more graced our festive board and Dr. Maud J. Frye, '92, responded on their behalf.

The graduating class (1915) were installed to membership in this association by toastmaster McKee, each one assuming the obligation of loyalty to Alma Mater and promising to live in accord with the high ideals of our noble profession.

Dr. Clayton W. Greene, permanent secretary of the class of

1910, reported the action taken at their reunion in contributing a loving cup.

Dr. Julius Richter, '04, our efficient secretary, prepared a series of cartoons featuring some special fact relative to a number of our more active and energetic alumni. These were projected on a screen with a stereopticon and added largely to the levity of the evening. The decorations of the hall were also in charge of Dr. Richter.

The singing of college songs was rendered with even more spirit and vim than in years past. Special credit should be given to Dr. Norman L. Burnham, '96, for the success of this feature. As a chorister and song writer Norman certainly has no equal. The alumni prize song "The Bison is King of Them All," words and music by Dr. Herbert U. Williams, '89, was the hit of the evening.

Dr. Kauffman, retiring chairman of the executive committee announced the offering of two prizes for the best songs to be submitted by the alumni of any department of the U. of B. prior to January first, 1916,—the selection to be made by a committee of impartial judges and the songs to be rendered at the second annual dinner of the Associated Alumni to be held in Buffalo on the evening of University Day (February 22; 1916). Lest Dr. Williams again become the prize winner, our members are requested to begin at once so as to send in their contributions in due season.

FRATERNITY REUNIONS.

These were held on Tuesday night, June 1st. The Nu Sigma Nu (I. C. I. chapter), Phi Rho Sigma (Alpha Omega Delta chapter) and the Omega Upsilon Phi fraternities entertained their members at their respective chapter houses.

THE UNIVERSITY BISON.

The attention of the alumni is again directed to the U. of B. paper, **The University Bison**, which is published monthly and is edited and controlled by the student body. This paper contains a report of all University activities of both the graduate and undergraduate body and therefore deserves your support. Subscriptions can be sent direct to the business manager.

COMPARATIVE STATEMENT OF ACTIVITIES FOR THE PAST FOUR YEARS.

	1912	1913	1914	1915
Registration	263	324	410	385
Attendance at Annual Dinner.....	130	175	200	225
Balance in Treasury.....	\$132	\$260	\$250	\$200

This statement shows a steady and healthy increase in the activities of our association from year to year and were it not for the meeting of the State Society coming six weeks prior to our own gathering, our attendance would have exceeded last year. The increased expenses incident on the organization

of the District Alumni Associations account for the reduction in the balance in our treasury, we simply must have more dues paid in each year.

PLANS FOR THE COMING YEAR.

The executive committee in planning its arrangements for the ensuing year asks your favorable consideration of and hearty support in all of its efforts. There are many ways in which all can co-operate towards the increasing alumni activities.

1. **ALUMNI CATALOGUE.** This much promised and long expected book is now in the hands of the printer and will be mailed in **October**. It contains the new constitution and by-laws, a list of members by classes, as graduated from the University, a geographical and alphabetical index, and other data relative to the University and our Association.

2. **LOCAL ALUMNI MEETINGS.** (a) Chautauqua District Association, meeting at Olean, N. Y., October 21, 1915. (b) Central and Northern New York Alumni Association, meeting at Syracuse, N. Y., November 18, 1915. (c) Interstate Alumni Association, meeting at Elmira, N. Y., March 27, 1916. (d) Rochester District Association, meeting at Rochester, N. Y., April 13, 1916. (e) Metropolitan Alumni Association, consisting of the alumni residing in New York City and vicinity, to be organized in New York City on March 28, 1916.

3. **ANNUAL DINNER OF THE ASSOCIATED ALUMNI** (all departments) at Buffalo on University Day, (February 22, 1916).

4. **FORTY-FIRST ANNUAL MEETING OF THE ASSOCIATION**—Tuesday to Friday, May 30 to June 2, 1916. Arrangements are already under way to hold clinics on three day of the meeting, same to be given by the masters of medicine and surgery from the large medical centers. The program will excel all previous ones. The Harrington Lectures will be a special feature, the speaker in contemplation is one of the great authorities in his field of study and his subject will be of interest to all. At this meeting we celebrate the seventieth year of the foundation of our University which in itself is an important event. Whilst the officers are at all times ready and willing to do their utmost in planning the arrangements, it is absolutely essential to have the united co-operation of the entire alumni body in order that the meeting be a success. **Reunions** will be held by classes of '61, '66, '71, '76, '81, '86, '91, '96, '01, '06, and '11, the same to be in charge of respective class committees. Therefore, it behooves the members of these classes as well as the other alumni to plan their arrangements so as to be in Buffalo at the meeting, thereby showing their ever-increasing enthusiasm for and loyalty to Alma Mater.

Arrangements have been made with Dr. A. L. Benedict, '88, editor of THE BUFFALO MEDICAL JOURNAL in which this report is published to have an Alumni page wherein all announcements of this association will appear and any news items sent to the editor will be published therein.

OUR CONTEMPORARIES.

Child Betterment, July, comments as follows, after quoting from our editorial on Literal Fly Swatting.

"We endorse the position of the Buffalo Medical Journal so far as its opposition to enlisting children in the anti-fly crusade is concerned, but we beg leave to state that the editorial does not mention the chief objection to the proposed slaughter of the fly by children. WHY TEACH CHILDREN CRUELTY TO ANIMALS?"

Unfortunately, the advance of sanitary knowledge no longer allows us to teach humanity in the broad sense of sparing all forms of animal life. Let us omit reference to the utilization of animals for physiologic and pharmacologic purposes. The fact remains that children must be brought up to regard flies, mosquitoes, various other insects and even such vermin as rats and mice, as dangerous enemies of the human race. That is why we did not allude to slaughter of the fly by children as chiefly objectionable because cruel. We don't know whether the ordinary forms of fly killing are cruel or not, in the customary sense of the term. We don't know just how far the sensation of insects is developed. We attempt no discrimination between "warm blooded and cold blooded animals" from the standpoint of humanity. The fact remains that the kindheartedness that begins "Baby-bye, Here's a fly. Let us watch him—you and I" is objectionable not only to the grammarian but to the sanitarian. Instead of teaching children that it is wrong needlessly to set foot on a worm, we must teach them deliberately to set foot on certain destructive caterpillars. We must warn them against playing the Good Samaritan to "poor sick kitties" picked up on the street. We have the harder problem of teaching children not to be cruel and nevertheless that certain forms of animal life are always potentially dangerous and all forms sometimes actually dangerous.

The Louisville Journal of Medicine and Surgery for August, says, sarcastically:

"It is nothing but natural that an astute lawyer who has cleared a murderer and turned him loose on the public should

shake hands with and otherwise congratulate himself."

Considering the fact that the law of this and other enlightened countries guarantees to all persons charged with crime, a fair trial and the benefit of counsel, it occurs to us that a lawyer employed or assigned to defend a murderer may very reasonably take the ground that it is his duty to act sincerely for the interests of his client, and successfully if possible. In the case assumed, we imagine that the lawyer feels exactly the way that a physician does who has saved the life of a person whom he knows to be a detriment to society. In either case, for the professional man to fail to do his best or deliberately to act against the interests of his client or patient, because of his conception of the interests of society, shows ethical hypermetropia. The same logic would advocate betrayal of an army by a soldier who did not approve of his country's policy in a war.

The *Journal of Inebriety* has been reported discontinued on account of the death of the editor. Dr. T. D. Crothers of Hartford, who has been the sole editor-in-charge since the establishment of the journal in 1875 is very much alive. Owing to the sudden death of the publisher, a temporary suspension of publication was inevitable but plans have already been made to resume issue at an early date.

TOPICS OF PUBLIC INTEREST.

Warning. Dr. H. W. Humphrey of Lowville, N. Y., warns against a man claiming to represent the "International Automobile League" with headquarters at Buffalo, and selling stock, membership, etc.

Population of Buffalo. The state census gives a population of 459,508, an increase of 8.4 per cent. since 1900.

Drug Thefts. Dr. Burt J. Maycock of Buffalo and others have reported thefts of morphine, etc., by waiting patients. The difficulty of securing narcotics will undoubtedly require greater caution than usual against thefts of this kind.

Insanity Increasing. 36,240 inmates of public and private asylums, are reported by the Secretary of State of N. Y. The ratio per 1,000 population has steadily increased as follows: 1890, 249; 1900, 304; 1912, 329.7; 1915, 352.6.

Proposed Reduction of State Boards. The State Charities

Aid Assn. opposes the plan of reducing the control of all charitable and penal institutions of the state to a single board and denies the allegation that such institutions are at present under the control of 26 different boards. Three boards have been discontinued, two others have no relations to philanthropic institutions, seven "have the same or substantially the same relations to state institutions as to all departments of the government and these relations will probably always of necessity continue"; four are expert bodies with powers of inspection and recommendation as to particular features, five more have similar powers. "Simmered down, there are actually four officials or commissions that have any actual powers of control of state charitable institutions." These are: the fiscal supervisor, the sites buildings and grounds commission, the buildings improvement commission, the salary classification commission.

Special Requirements for Health Officers. After November 1, 1916, local health officers appointed in New York State will be subject to the following requirements: medical degree obtained at least three years previously; between 24 and 65 years of age; special training consisting (a) of one year correspondence course with one week resident laboratory and field work, under control of State Public Health Council; or (b) approved 6-weeks course in Public Health at some educational institution; or (b) evidence of substantial compliance with foregoing requirements. These requirements may be waived by the Public Health Council under special conditions specified by the local board of health. These requirements affect about 1,200 officials. Appointees prior to November 1, 1916 will be made to agree to conform to the requirements within the first year of office.

Narcotics Law. Important Decision Secured. On the 28th day of July, 1915, Hon. Philip A. Laing, County Judge of Erie County, handed down a decision "In the Matter of the Petition of John W. Kales, for an order to return his private papers, books and other property forcibly seized on his premises, 139 South Division Street, Buffalo, N. Y., by Wesley C. Dudley, as district attorney, and his assistant, Herbert B. Lee, on or about May 20th, 1915." The decision of said County Judge directs the district attorney to return to said Kales or his attorney, Alfred L. Harrison, on service of the order, the record book containing the names and addresses of the patients treated by said Kales with morphine and any and all other property which said district attorney or his agents removed from the premises of said Kales on said May 20th. The same have been returned.

This decision was rendered in consequence of a petition made by said Kales on June 7th, 1915, and argued before said County Judge on June 8th, 1915, at which time of argument the district attorney returned in Court: One bottle filled with morphine, part of a hypodermic syringe, a small box containing one eighth of a grain of morphine, an empty bottle formerly containing morphine tablets and one or two other little articles which the district attorney's assistant seized on said day. But the district attorney insisted on retaining the record book containing the names and addresses of the patients treated by said Kales with morphine.

Mr. Harrison, the attorney for said Kales, at said argument, maintained that the seizure was illegal and lawless as it was in violation of the Constitution of the United States and the Constitution of the State of New York on two grounds, namely: (1) That no one shall be compelled to be a witness against himself in a criminal manner; nor shall any one be deprived of his liberty or property without due process of law; and (2) The right of people to be secured in their persons, houses, papers and effects, and that no warrant shall issue therefor except for probable cause supported by oath or affirmation particularly describing the place to be searched and the persons or things to be seized.

In the case of Dr. Kales, by seizing his own books and papers, he was being compelled to be a witness against himself. The Court in a leading United States case says:

"Individual may stand upon his Constitutional rights as a citizen. He is entitled to carry on his private business in his own way. His power to contract is unlimited. He owes no duty to the State or to his neighbors to divulge his private business or to open his doors to an investigation, so far as it may intend to incriminate him."

And the Court, further defining the words "due process of law" says it means, "Law in its regular course of administration through the Courts of Law." And "process" means, "One issued by **judicial** officer."

This decision of Judge Laing holds and emphasizes the fact that the record book required by the law to be kept at the office of the physician cannot, and no other property, can be removed by the district attorney or any other officer, except through due process of law, namely, by an order of the Court properly obtained.

Ward for Drug Habitues. An appropriation of \$2000 has been made for equipping a ward in the Buffalo Municipal Hospital on E. Ferry Street and for paying for the care of patients. 30 can be accommodated at once.

Playground for Batavia. The grounds at Main and Jefferson Streets were formally opened August 6.

Failure to Report Births within 5 days, as required by law in N. Y. State, will subject physicians to prosecution by the local district attorneys.

A. M. A. Attendance. The California State Journal of Medicine claims that 1054 members of the State Society—more than 50% of the total—attended the recent A. M. A. meeting in San Francisco, the total registration being a little over 2300. Apparently the out-of-town attendance at the A. M. A. was relatively less and absolutely only slightly greater than at the State meeting in Buffalo.

An Open Air School will be established in Hornell, this fall.

Typhoid. On August 18, 12 cases were reported to the Buffalo Department of Health, the largest number ever reported in a day. This statement has been made in the daily press. Dr. Gram authorizes us to deny it and to state that there has been no unusual number of cases and that a large share of those reported have been patients brought into the city or residents who have contracted the infection elsewhere.

The Buffalo Industrial Show will be held afternoons and evenings, September 22-Oct. 2; admission 25 cents. Physicians are asked to attend, not only because a prosperous business community means a prosperous profession, but because many of the exhibits will be along lines in which physicians are interested.

PERSONAL.

Announcement of removal, travel, and other matters of interest are requested. Please report errors in the listing of any physician in the State and other directories, that we may co-operate with the State Society in securing a correct list.

Dr. Charles R. Cullinane of Buffalo returned August 3 from a motor trip through the White Mountains.

Dr. George L. Brown of Buffalo returned July 20 from a two months' trip to the Pacific Coast.

Dr. B. H. Grove of Buffalo returned from an auto tour through New England, August 1.

Dr. Roland O. Meisenbach of Buffalo gave a clinic at Los Angeles, by invitation, after the meeting of the A. M. A.

Dr. C. B. Kibler of Corry, Pa., made a tour of New York and New England in August.

The touring car of Dr. E. E. Haley of Buffalo, was stolen on the night of August 18 but was found, undamaged, the next morning.

OBITUARY

Readers are requested to report promptly the death of all physicians in Western New York, or former residents of this region, or graduates of any medical school in Western New York, and to notify the families of the deceased of our desire to publish adequate obituary notices.

Dr. John Jordan Lenhart, Eclectic Medical Institute of Cincinnati 1871, University of Buffalo 1878, died at his home in Bemus Point, N. Y., March 26, 1915, aged 70, of acute dilatation of the heart.

Dr. John Daniel Mitchell, whose death June 27, at the age of 62 was announced in our last issue, is credited by the J. A. M. A. to New York University, 1876. He was a founder and for six years superintendent of the Steuben Sanitarium.

Dr. Harry Addison Williams, Toronto 1908, locum tenens for Dr. Victor Ross of Hamilton, Ont., was shot July 2 by a patient who then killed himself.

Dr. Robert Hugh McKay Dawbarn, P. & S. 1881, a well known surgeon of N. Y. City, died July 18, aged 66.

Dr. Francis Delafield, P. & S. 1863, the pathologist, a resident of N. Y. City, died of apoplexy at Noroton, Conn., July 17.

ABSTRACTS

Carcinoma of the Bladder. Abstract of Clinical Lecture given in the Long Island College Hospital, by Henry H. Morton, M. D., Brooklyn.

Every bladder tumor in time becomes malignant and kills the patient by constantly recurring and continuing hemorrhage, or an ascending pyelo-nephritis.

There are no symptoms of bladder cancer till bleeding begins, at first a painless intermittent hematuria which later becomes more or less constant.

The diagnosis can be made only by cystoscopic examination.

The earliest attempts at operation for bladder tumors consisted in simply twisting or scraping off the new growth, but recurrences were frequent. Later, they were removed by the actual cautery, to destroy the base. The results were a little better, but recurrences were the rule.

All operative attempts in cancer of the bladder have been discouraging, as very often the disease was spread, or the suprapubic wound failed to close.

According to the European clinicians the bladder should be opened only in

1. Neoplasms involving the dome or front.
2. Budding neoplasms whose offshoot clog the neck of the bladder like a stopper in a bottle and cause retention of urine.
3. Neoplasms causing hematuria where hemorrhage makes intervention necessary.

When the tumor involves the floor or is around the ureteral orifice it is better to leave it alone.

In the final stages to make the patient a little more comfortable a suprapubic cystostomy with permanent fistula or a double nephrostomy may be done.

Fulguration with the Oudin current is the ideal treatment for non-malignant growths, but its use in malignant growths only serves to check hemorrhage or slightly retard the growth of the tumor.

At present the action of Radium is too uncertain and not sufficiently worked out to be depended upon.

Removal of the tumor and resection of the bladder wall for one inch around the base promises to be of some benefit in bladder cancer provided it is done early.

The general practitioner should bear in mind that every case of hematuria demands an immediate cystoscopic examination, and if the hematuria is caused by bladder cancer, an early diagnosis with prompt removal affords at least a possibility of saving the patient's life.—H. V. Raycroft, M. D.

Higher Education and Reproduction. The Texas Med. Jour., editorial, July, states that 41.9% of the graduates of Mt. Holyoke are married; 32.8% of those of Bryn Mawr; 31% of those of Wellesley. The average reproduction is respectively 0.8%, 1.74, and 1.17 of a child. When we consider that, even under the best conditions, 3 children must be born to a marriage and 4 to the average woman to provide for a stationary population, it is obvious that in spite of contradictions, the highly educated woman is not reproducing her share.

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ORIGINAL ARTICLES

The right is reserved to decline papers not dealing with practical medical and surgical subjects, and such as might offend or fail to interest readers. Contributors are solely responsible for opinions, methods of expression and revision of proof.

Prophylaxis of the Baby Welfare Station.

FRANK E. BRUNDAGE, A. B., M. D., Buffalo.

Aside from the general care of the baby and utensils as taught by the nurse in the home, there are points of emphasis which essentially belong to the physician in charge of a milk station. Our main object is to keep the baby well and to do this we must not dismiss the mother by relying on her judgment concerning her babe's health. By strict questioning something is found to be wrong. False impressions must be corrected and advice for the future given in order to prevent unnecessary sickness. If we do not follow this procedure the place is merely a milk dispensary and not a prophylactic station as is intended.

For success in our work it is essential that we have a mother who is receptive and wants to learn. Those who follow directions usually get the best results and become a credit to herself and the station as well as benefiting the life of the babe. There are many however who after receiving the advice are not enough concerned about the health of the babe to carry out the instructions and it is only by the persistent effort on the part of the nurse who makes regular visits at the home that anything is accomplished. Besides having a receptive mother, regular attendance at the station is very necessary, at least every two weeks. In this way close attention may be given to the food and habits of the babe.

To be more definite, a discussion of the more important topics are in order. A breast fed baby being our ideal, every effort is made to maintain the breast supply. If the milk begins to diminish the symptoms of hunger and stationary weight are present. The mother is advised to drink a liberal supply of nourishing gruels. Her diet and exercise is reg-

ulated according to her particular need. If constipation is present, every means is taken to remedy the condition. A strict diet of fruit and vegetables with a small amount of meat, no white bread or potatoes will often accomplish much and seldom cause any trouble with the infant. Other details in regard to the mother's health which might affect the baby arises from time to time and are treated accordingly.

Hours of feeding is constantly abused. The greatest difficulty is met in convincing the mother that to establish regular hours of feeding is not only conducive to the best health of the babe but will materially lessen her trouble and work. I still believe in the majority of cases that the two hour feeding in bottle fed babies is proper. The second month a two and one half hour feeding and after the third month a three hour feeding. A normal breast fed baby may be started on a three hour feeding with usually good results. Some breast fed babies, not all, will do well, if not better, on longer intervals but to make it a general rule is asking too much of the mother for the actual benefit to be derived. When there are symptoms of over feeding or intestinal trouble lengthening of the intervals is always indicated, no matter what the age. These hours can readily be changed if there is regular attendance at the station.

Strength of food is the great problem. The formulas should be increased so gradually that no intestinal disturbance takes place. If a child is allowed to go for many weeks on one formula and is then suddenly changed to a much stronger mixture, trouble is encountered at once. A slight advance both as regards quality and quantity should be made every second to fourth week, depending upon the condition of the child.

Constipation in a babe is not in my estimation a normal condition. When not relieved, rectal fissure, piles and other local trouble is the result as well as having an irritable, bad sleeping baby. At the first suggestion of this trouble, the food is made as laxative as possible. Orange juice is given as early as three months if tolerated. Oatmeal gruel may be given either with the milk or separately. Milk sugar is always the sugar of choice in this condition. Milk of Magnesia or cascara is given as a last resort as the bowel becomes easily accustomed to the added stimulus. Many infants who are especially obstinate get good results when a little solid food is added to the diet. The condition of every babe's bowels should be ascertained at every visit to the station.

Nipple abuse is wide spread. Mothers give them for the most part to keep the baby quiet. It is fortunate many times that the baby has more sense than the mother and refuses to have it in their mouth. When a baby enters the

station with this habit or contracts it afterward the mother is told the reason she should not continue the habit. The production of sore mouths, distorted features and tendency to adenoids is impressed on the mother as end results of this practice and it is usually sufficient to convince her of the bad practice.

Skin hygiene needs a great deal of attention, eczema, urticaria, erythema, furunculosis, ringworm, impetigo and scabies are the common conditions encountered. The majority of these are a result of poor care. Internal and external treatment is given according to indication. Eczema which stands first is often due to the abuse of soap and water on a sensitive skin, combined with neglect or ignorance in the use of food and clothing. In many normal breast and bottle fed babies this condition is apparently a skin reaction. These are very obstinate to treat and take many months to cure with the best hygiene. It is more prevalent in the fat babies and those undernourished. If the diet is at fault a correction will often alleviate or cure entirely. Bran baths are often efficacious in many cases but in some no water at all is indicated. The skin is cleaned by some kind of oil.

Mouth conditions confine themselves to two conditions, Soor and Aphthous stomatitis. These we find are due to uncleanness in the breast or bottle fed. Some become so severe as to prevent feeding except by medicine dropper for several days. If the mouth is kept clean with a boric acid solution and a daily application of a silver nitrate solution, the condition rapidly clears up.

Solid food given early is one of the greatest temptations of most every mother. She is told that when the time comes a suitable diet will be given, otherwise nothing but milk. Most babies suffer from overfeeding at all periods but more especially about the eighth month. At this time the baby craves other food besides the milk and actually needs it for growth. The trouble lies in the fact that the mothers start in with too strong food and too much of it.

Adenoids and enlarged tonsils develop before our very eyes. Many times when a child is not doing well, takes its nourishment poorly, is restless and has a continual discharge from the nose, the fault lies not in the diet but the presence of these abnormal growths. We advise them removed at once no matter what time of year if they are interfering with the child's growth.

When a baby is ill, I am convinced that in the majority of cases mechanical means and general care are of more value than any medicine. Heavy cough syrups, soothing syrups, colic cures and worm powders help usually the mothers mind only and does the child no good. We condemn the most of

them and lay stress on the general good resistance of the babe to overcome disease.

Finally then, the success of a prophylactic milk station or welfare station depends not so much on the numbers seen but upon the careful attention of details in each case, given in time and carried out with a reasonable amount of precision.

Amniotic Membrane in the Prevention of Peritoneal Adhesions. C. B. Lyman, Denver, Col. Med., Aug. Salt solution is regarded as too quickly absorbed to be of benefit and the author is convinced of the inefficiency of mineral oil from experience with a case in which adhesions twice reformed after operations. Four cases are mentioned as showing good results from the use of amniotic membrane. The membrane is washed free from blood and placed in 1-2 per cent. formaldehyde in 70 per cent. alcohol and kept in the ice chest. An hour before using, it is transferred to physiologic salt solution. Very fine silk is used in a cambric needle. Split silk, twisted before using has proved convenient.

Cotton Seed Dermatitis. J. A. Nixon, Bristol, Eng., Bristol Medico-Chi. Jour., June, states that this occurs in "dockers" a word which scarcely requires translation, as it is really much more sensible than the American term longshoremen—handling cargoes of cotton. Itching occurs for several hours before the appearance of a rash, similar to that caused by mosquito bites. Some of the spots develop blebs. The rash disappears within a week unless there is further exposure or reinfection from scratching. Nixon has found a parasite which he believes to be identical with or very similar to *pediculoides ventricosus*, the cause of barley itch.

Cheap Fire Grenades. La Nature gives the following formulae: Calcium chlorid 157, Magnesium chlorid 56, Water 797. (Hagnard). Marine salt 200, Ammonium chlorid 90, Water 710. (Howen). Ordinary heavy mineral water bottles may be used.

Coronary Thrombosis. B. M. Randolph, of Washington, Wash. Med. Annals, Sept., reports a case of angina in a man of 40 appearing younger but having marked arteriosclerosis. Attacks had occurred at intervals for four years, following active exercise. No murmurs but heart enlarged and weak. History of moderate use of alcohol and of typhoid ten years before. Wassermann reaction positive. A clot was found in the right coronary, containing disorganized red cells, deposits of haemosiderin and beginning formation of fibrous tissue, indicating that it must have occurred some time before death.

The Beginnings of Education.

Some Suggestions to Parents and Teachers.

By HENRY JONES MULFORD, M. D., Buffalo, N. Y.

Third Paper—The Result.

The aim of education is the development of self-consciousness; the individual must know what he knows. If his knowledge is not at his command then he is not educated. In order to be at his command his knowledge must be in his conscious memory, not merely in his reflex memory. If it is reflex he has no control over it, he cannot himself call it into action, its activity may be aroused only through some external stimulus. That is the difficulty with most educations, they are reflex; that is, the individual is not aware of the extent of his own knowledge; he has no command over himself. That is why so many of us are so far removed from the ideal. The ideal individual should be the sum of his brain centres, his centres should work together in an evenly balanced harmony, each centre having developed its conscious memory in the proper manner. But, the individual of today does not approach the ideal in that respect. In fact, there is no present ideal individual. Mr. James Huneker, in a paper on "The Music of Today and Tomorrow," in the *Century Magazine* for May, 1914, approaches the truth when he says: "Mediocrity is mankind in the normal." But the statement is not true, for, mediocrity is **not** the normal. It may seem to be to the superficial observer, but the **actual** normal for mankind is the **ideal**; that is, the sum of the brain centres. What Mr. Huneker should have said is, that mediocrity is mankind in the **average**, for that, alas! is the truth. The brain centres of the everyday individual have not developed uniformly; one can say, almost, that they have not seemed to develop at all. They have grown as anatomical units, but they have not grown as thought units: the individual has not learned to use the anatomical units. And so, as the brain centres **are** the individual, one readily can understand why the average is mediocrity.

In our several discussions we have uncovered two basic facts: that the critical period in the growth of the human brain is during the time of its mass development, during the first eight years of its life; and, that the development of the cells of the cortex of the human brain depends upon memory, upon the capacity of those cells for storing up sensory impressions. But, now, there is another fact of equal importance, which may be put in these words: That every human

brain carries within its cells the menace of self-impairment through the outcropping of a bias.

This phrase, "the outcropping of a bias," harks back to the fact that the brain centres are developed by what goes into them; that that which goes in goes into the memory, and, remaining there, is liable at any moment to assert itself. To be exact it means this: that some portion of the cerebral cortex may become overactive and dominate the rest, completely altering the outlook of the individual. Knowing this we can understand how great a menace the past of an individual may become. If the individual is careless as to what goes into his memory he is going to reap the result of his carelessness. This should be impressed upon the mind of the individual: every child should know that each **present** thought, each idea, has a future. In this connection we recall the words of Banquo to the witches in "Macbeth."

"If you can look into the seeds of time,

And say which grain will grow, and which will not."

The seeds of time! What are they? What, indeed, but our thoughts, our words, our actions? But, after all, one does not have to be a witch to "look into the seeds of time;" one does not have to be a witch to look into his own thoughts, into his own actions. These are the things that make the future; these are the things that go to upbuild the brain structure. But the individual must know how to build; he must know how to select his materials, what to take and what to avoid. There must be no bad spots in the "walls" of this structure, for bad spots mean weakness. In a structure built of stone or brick a bad spot means actual weakness of structure; but in the structure made up of brain cells the bad spots, **the bias**, means strength, and this kind of strength is bad for the individual. We often hear it said of a person who has gone wrong in some particular that he was weak in that direction; but that is not the truth. It is not weakness that causes a man to go wrong, it is strength. **Weakness never leads.** A man's character is determined by his strongest attributes, those attributes that lead and overshadow the others.

It is the easiest thing in the world for an idea to secure a foothold within the brain and later to develop a bias. The brain is so open to every passing influence that it is almost impossible to supervise all that goes into it. This being so the question arises, is there a remedy? There is, although the difficulties of administering it are many. Remembering that human brain development has come through action we must proceed with the building up of our brain structure with that in mind. If our beginning is right and we develop the child brain as it should be developed we early bring that brain to a realization of its own position and power; we develop the

child's self-consciousness early. We must bring the child to understand that he is to direct the activities of his brain centres, not that he is to allow the centres to direct him. **He must not allow his brain centres to dominate.** He is to use his inner vision, his reason, and by it to regulate and to harmonize the action of his brain centres. Dominance by his centres would mean anarchy for him, for then the action of the centres becomes haphazard action; that is, action without conscious direction. **It is this action that is behind the development of the bias.**

Brain habits that come through conscious direction are habits that are formed in the proper manner, and, are, therefore, good habits; habits that come unconsciously, that form themselves, are habits that are formed in an improper manner, and, are, therefore, bad habits. Bad habits develop under poor teaching, or where there is no teaching at all. In either case this means that the child himself has had the greatest influence upon himself; the greatest influence, and, under the circumstances, the worst influence. If this has gone on long enough there have been some parts of the brain structure begun, some portions of its "walls" have been laid, or, some "stones" have been set irregularly here and there. In both cases the bias is a very real danger; and, it is in these cases that the later education is apt to become just a veneer, a veneer that but thinly covers the baser material underneath. When this veneer warps and cracks the bias shows forth.

In the child who has had no regular teaching and who has begun the formation of bad brain habits without knowing it there has not been a great deal of harm done because the sensory impressions coming in to the brain cells have been more or less scattered; while in the child who has had bad teaching the impressions have been directed in some sort of order, even though the order has been a wrong one, and the impressions have become more or less permanent. In the first there has been no real beginning; in the second there has been a wrong beginning. And, so, it is not difficult to understand that the no-beginning child will be easier to manage than the wrong-beginning child. In the child already under way there is the wrong to overcome; the "walls" that have been begun in this brain structure are obstruction walls, they obstruct his further progress. In the no-beginning child there are no set walls, only an occasional obstructing stone, and, there is not, therefore, so much to overcome. The main difficulty with the last is that these occasional stones, that is, independent ideas, are most often fault-ideas that, later, will develop into biases. And fault-ideas may not be eradicated from the brain any more than any other idea may be eradicated that has secured a place therein. All that may be hoped for is that these spots

may be surrounded by good ideas. New, strong, "walls" must be built about the old; new, attractive ideas, ideas that form logical sequences, must obliterate the harmful, disjointed fault-ideas. In this connection I wish again to assert my belief that no child under eight years of age should receive formal teaching. Before that age there should be discipline and a preliminary training of the special senses, but there must be no formal teaching in the very young. Formal teaching puts too great a strain upon the immature brain centres, while preliminary training under discipline develops the centres and avoids the implantation of fault-ideas.

As we learned in the first paper of this series, before the age of eight the brain centres are not structurally ready for complete function. The centres early begin to receive sensory impulses, but no centre can respond to these impulses until the cells and the transmitting nerve fibres are ready for concerted action. And, further, before a brain cell can respond to a sensory impulse it must have received a number of the same impulses. In other words, not only must a centre be structurally ready for function, but, it also must have had some preliminary training before it properly can respond to the received impulse. And, so, in the young child, the preliminary training is a training aimed at the development of the cells of the cerebral cortex, a development that comes as a natural thing, without effort on the part of the cells themselves. This training is solely developmental, and, in fact, amounts to what might be called passive exercise of the cells. But this training is the most important thing in the history of the child, for, upon it depends the entire future of the individual. This is the period when the brain is increasing its bulk, and its cells are being developed by what is going into them: it is the time when the sensory impressions grow into the brain substance and become a part of it, as it were. These impressions grow into the memory, and, because they do, they may not be eradicated. They remain either to make or to mar the individual.

The normal baby is born with all his brain centres as potential units; the cells are there ready for development into function. As the baby advances into life, as the infant becomes the child, the centres take up their function as the demand comes to them. As we have seen there is a regular developmental sequence, but no centre comes into active action without a preliminary period of training. Of the three groups of centres the motor group and the special sense group have, as it were, grown up with the brain; they are an indelible part of it. The third group, that of the higher centres, is a later development. The first and second belong to the period of brute development, the third to the period of man development. The period of man development has added, and is adding, to the

merely animal centres the man refinements. In the motor centres there is a finer action and a closer co-ordination; in the special sense centres the field of action has been increased. In the change from brute to man, muscle action has progressed from the exhibition of mere brute strength to the fine adjustments of the skilled workman. In the development of the special senses the area of the centres has been increased and the cell development of each centre has been advanced to a finer stage. Take the sense of hearing for example. In the beginning that centre was a centre for the reception of just sound, it was nothing more than a faculty by means of which the individual guided and protected himself. Gradually he learned to differentiate sounds and to locate them, and, from then on, the sense of hearing became a means for the advancement of the animal. In man this centre is taking on a wider and wider area of usefulness. Through the larger development the centre now is able to recognize and to place any sound, whether it be just gross sound or a musical note; through this man has been able to develop innumerable musical instruments, and to recognize the voices of his friends; through it a "word" centre and a language centre have been added to the cerebral cortex. It is important that we remember how this centre has advanced in its development, for it is through the same process that the hearing is developed in the child. The first sound of the word "Mama," for instance, is just sound in the child's ears, and, as such, is referred to the "sound" centre. Later, after a sufficient number of repetitions of the word, it "orients" itself, as it were, and the word centre takes charge of it. The mechanism of this orientation is somewhat complicated, and we can understand, therefore, the necessity for the repeated preliminary word impulses.

And, as it is with the centre for hearing, so is it for each of the other centres. The mechanism is complicated in each, and in each there must be a period of preliminary training through which the mechanism is brought into right working order.

And when must the training of the centres begin? When the individual begins to use them for himself. We have seen that the cells of all the brain centres have a double action: they have an automatic or habit action, and they have conscious action. It is the habit action which we want to overcome, and we do this through the training of the conscious action. If we put consciousness in command all else must become secondary; reflex thought, or habit action of the thought cells, no longer dominates. In order to bring this about we shall have to take the child in hand and show him how to get the most out of his special senses: show him how to use his eyes, his ears and his hands, the other special senses not counting for much in the development process. We must show him

where his destiny lies, and, then, how he may achieve that destiny: we must make him aware of his own power. The child's beginning instruction must be in the elementals of everyday things. The elementals of sound, of colors, of form, of words, of everything with which he comes in contact. It is through these things that his future is to come, that his success is to be directed. When he takes command of his brain centres he takes command of himself and the development of his own character. There can be no strength of character without the knowledge to develop that strength; there can be no character unless self-consciousness directs it. It is for this reason that brute animals have no character such as man has. Their actions are merely habit actions, reflex actions. We can teach animals to do certain acts, but we cannot make them think. They do not reason out their actions, they merely repeat them through habit. In support of this contention here is a newspaper clipping. Unfortunately I have not been able to trace this story to any source, but it has the sound of fact, and certainly accords with theory:

"Curiosity and cowardice," said the one-legged veteran, "are the chief characteristics of all monkeys and of most men. I was keeper of the monkey house in a zoo after the war. My biggest charge was an ape the size of a twelve-year-old boy, and it was through his curiosity and cowardice that I used to manage him. We exercised this ape in the big room every day, but when we wanted him to go back to his cage, he'd climb up to the roof of the room, and, even with food, you could not tempt him down. So I would go to Jack Lover and take him by the arm and direct his attention in a mysterious manner to the dark passage under the steam pipes. We would tip-toe to the pipes and pretend to point out to each other some horrible unknown creature in the passage, and I would say: 'There he is! There he is!' As we bent over to look more closely we'd hear the patter of feet behind us. The ape's curiosity had got the better of him. He came and crouched beside us, and peered, with us, into the dark passage fearfully. Then suddenly Lover would shout: 'Look out! He's coming out—he's coming out!' and we'd scamper away in the direction of the ape's house. But the ape would be ahead of us. He'd rush into his house in a perfect whirlwind of excitement and terror. Then—click—we'd snap the door to on him, and he'd look very foolish. Every day we fooled the ape in this way. He was long, you see, on curiosity and cowardice, but very short on memory."

In special training of the special senses it is **brain** training at which we aim, not merely sense training. The average per-

son uses his special senses only superficially. If he looks at an object he merely glances at it, and, an hour afterward, he is unable to give a clear description of what he has seen. His eyes have seen the object, but his brain has not; that is, his brain has not been impressed by the object—impulse. The object has been seen, but it has not been analyzed as to its peculiarities. Now, no one can analyze who does not know how to analyze; no one can analyze who does not know the component parts of that which he seeks to analyze. And, so, in this training we get down to the component parts, the elementals. These the brain learns, and, through this knowledge, directs the action of the special senses, as well as the action of the other brain centres. When the individual can do this he has become self-conscious; he has become aware of his own powers. But, behind this there must be memory; man would get nowhere without that. The lack of it keeps the brute just a brute. The first consideration, then, in the development of man is the development of the memory.

When the preliminary training of the senses is completed, when the child brain has completed its mass growth, and the time for beginning formal instruction approaches, what is to be the procedure? The procedure is much the same as before. While the individual has been thoroughly grounded in the elementals he is yet immature as to judgment. The brain has attained its full size, but it is immature as to experience. So far as its experience goes the child brain is capable of forming its own judgments, but, when it approaches new territory, it will need assistance in entering that territory. The new has to be analyzed as had the old, and the child has to learn the elementals of the new before he may proceed. To leave the child to himself, even though the right start has been made, is wrong, for the child, not yet entirely sure of himself, easily may get off the right track. He needs to be assisted for a time. It will be time enough to put the child upon his own resources when we are sure that those resources are ample for his needs. We want him to strengthen his own powers of observation and decision through his own efforts, but we need to watch him to see that he is so well versed in the elementals that his procedures are sound. But, the child's progress will be less and less difficult from now on. If the foundation of his brain structure has been laid aright the stones of the superstructure will fall into place naturally. The child's memory having been developed along right lines his self-consciousness will assert itself more and more as his experience grows, and, at last, will become so strong that the child safely may be left to himself.

In conclusion let me quote a sentence from Winston Churchill's new book, "A Far Country." In the first chapter

the principle character is reviewing his youth, and, at the end of the chapter, he utters these significant words: "At all events, when I look back upon the boy I was, I see the beginnings of a real person who fades little by little as manhood arrives and advances, until suddenly I am aware that a stranger has taken his place."

To me that sentence is deeply pathetic. There is high tragedy in the words: "I see the beginnings of a real person who fades little by little as manhood arrives and advances." The real person disappears and an unknown takes his place; the boy grows into the man, but the boy within, **the real person**, is not at home in his **new** surroundings. **The individual does not know himself: the boy has developed into an alien.** That is the result brought about by the modern system of development, but is that the result which we seek? The reader, if he has read these papers upon the education of the young, of which this is the last, may, perhaps, be able to answer that question for himself.

143 Allen Street.

Treatment of Tuberculosis by Compression. Eugene Grenier of Montreal, *Jour. de Med. et de Chir.*, Aug., gives the following historic notes: Carson of Liverpool, 1822, suggested that pulmonary collapse would expedite healing; Ramagde of London, 1834, arrived at the same idea; Piorry, about 1865, advocated strapping the chest; Forlanini of Pavia began a series of articles on the subject in 1882 but did not do his first therapeutic pneumothorax operation till 1892, about which time, Murphy of Chicago employed the same measure. Among 327 tuberculous patients observed by Grenier in the year ending June 30, 1915, 19 were selected for artificial pneumothorax. 12 cases have been observed long enough for a report. The attempt at pneumothorax failed in one case. Of six cases of complete pneumothorax, 4 have been arrested, 1 ameliorated, 1 has shown no improvement. Of 5 cases of incomplete pneumothorax, good results have been obtained in 2, fair in 1, and failure in 2.

Smokers' Patches. L. Landouzy, Paris, *Jour. de Med. et de Chir.*, August. Among 164 syphilitics, mainly tertiary, 131, including 4 women showed buccal patches. Of these 81, including 2 women, gave a positive Wassermann. Of 18 syphilitics in another series, 15 presented symmetric, commisural leucoplasia, and of these, 9 gave a positive Wassermann. He considers leucoplasia as valuable a diagnostic sign of syphilis as the Wassermann reaction and syphilis as the essential element in producing the patches, though smoking is the most frequent contributory cause.

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The Needs of The Journal.

A comparison of the year recently past with previous ones, shows a healthy, gradual gain in financial support. Some minor economies have also been accomplished, as practical experience of various kinds has been acquired. On the other hand, it has not been considered desirable to regard the Journal as a money-making business, but rather as an institution serving a professional end and, on this account, greater liberality has been considered safe in extending its usefulness in various ways. These statements should be qualified to refer to conditions presupposing a prompt receipt of subscriptions. It is not desirable on any account to lower expenses and thus lower the quality of the Journal, so as to render it independent of due support.

So far as Buffalo and surrounding towns are concerned—with due regard for subscription sharing—there is very little to be desired or expected in the way of increased circulation. Fortunately, the medical profession is not growing to any appreciable extent in numbers. Without any special effort, the scattering, distant circulation is gradually increasing. For the near future, it seems advisable to conduct the Journal mainly as a local organ—not for Buffalo, but for Western New York, a district that corresponds in general and professional population to about two average states or about one-twentieth of the whole U. S. It should be understood that it is not economically possible to conduct a professional journal, on a self-supporting basis, at a reasonable subscription rate, for any such number of persons as are contained

in any one city, or state, or other area having a population much smaller than that mentioned. It may be frankly admitted that the Journal does need greater support from the southern and eastern portions of its territory and we would be pleased to have our readers bear this in mind as they meet members of the profession. We may also suggest that unless the journal is saved for binding, an occasional copy might be mailed to some professional friend who is not a subscriber.

As it is obviously impracticable for a journal of this scope to employ reporters and correspondents, we are dependent for accuracy in news items of various kinds, upon the cooperation of our readers and more particularly for distant points and those in which we have no associate editor. This statement applies especially to personal and obituary notices.

While the Journal is not directly in need of funds, there are various fields of usefulness which might be cultivated if special endowments were available. For example, reports of institutions and societies, of prohibitive length and expense in printing considered simply as matter for supplying its readers in general, could be given a wider range and could be preserved if it were of sufficient interest to the members of these institutions and societies to pay for the direct expense. Likewise, professions more or less closely affiliated with the medical profession or organizations carrying on educational campaigns not too far remote from medicine, might find it advantageous to arrange for the regular publication of a section in the Journal.

The Journal has just about enough original matter contributed. Without admitting that this matter has not been of a high grade, it is true as of every human enterprise, that improvement is always possible. We feel that, for selfish motives as well as altruistic, the physician's best and most practical work should be published where it will most easily reach his immediate professional colleagues. Illustrations always enhance the interest if not the actual value of original articles.

A large amount of valuable matter in domestic and foreign exchanges is wasted, simply for the reason that no one man and no small number of men can read an average of ten journals a day, especially when we consider that some are in foreign languages. The editor can easily, in the course of reading necessary for his own practical use, prepare enough abstracts to fill whatever space is available, but it would be far better to have the broader judgment of a number of reviewers, interested in a number of special lines. For obvious reasons, most additional review work must be done by members of the local profession.

It is an open secret of journalism that while subscriptions

maintain the circulation, most of the nutrition must be derived from advertising. With no special reference to this journal nor even to professional journals in general, we ask you to bear in mind that circulars are the bane of all legitimate publications and that the reason that you can buy a cent's worth (wholesale) of paper in the form of a penny newspaper and that the average subscription rate of all sorts of periodic literature is about half the actual cost, is due to your attention to regular advertising. If we carry advertising that is not proper, let us know. If there is any advertising in your vicinity that is suitable to our columns and that we do not carry, please inform us and also speak to the potential advertiser about it. If we can increase our average advertising to 50 pages, inclusive of indexes, and "readers" proportionate to actual advertising, we can reduce the subscription to \$1.50.

In speaking thus candidly about the journal, we are justified by the fact that it was assumed by the present editor in the spirit of its inception and subsequent maintenance; namely that it is essentially a matter of mutual, co-operative professional labor. It is a paradox that such a spirit is pre-eminently necessary for a nominally independent journal.

Public Employment of Physicians.

Both sociologically, in regard to the tendency to remove medical practice from the field of competitive industry, and economically as a means of employment for an overcrowded profession, the number of physicians publicly employed, is a matter of great interest. Some months ago, we began an inquiry into this matter, expecting that a few letters to central bureaus would easily secure the desired information for the nation, state, county and city. On the contrary, it has been learned that physicians are employed by a large variety of subdivisions of government, in very different numbers, and that there is no single bureau from which statistics can be obtained for any main division of the government of this country.

It has been assumed that \$1200 is a living wage, and, indeed, this amount is probably fully equal to the average net professional income of physicians in private practice. This amount has, therefore been taken as the minimum salary in compiling the following statistics, except that in the case of resident physicians, salaries of \$1000 plus board, have been considered equivalent. In addition to the professional employment thus listed, a survey of appointment lists has shown a surprising number of positions requiring special education in chemistry, bacteriology, sociology and natural sciences, for which physi-

cians would be eligible if they found it desirable to obtain employment. There is also an enormous amount of employment of physicians on fees or small salaries for partial services. For example, the Indian Field Service employs 62 physicians who are in private practice, on salaries averaging \$577.66 and the Bureau of Pensions has 4,635 medical examiners paid by fees. Members of examining boards, physicians performing special services for counties, cities and villages, and members of special commissions, internes in various institutions, etc., are quite numerous and are paid, generally speaking, at a much higher rate than the minimum salary of \$1200, allowing for the amount of time required or for the fact that internes are obviously compensated in experience and that their earnings in private practice would be very small. No attempt has been made to estimate the amount of employment analogous in its economic features, to that by divisions of the government—as by insurance companies, mines and manufacturing industries, private hospitals and endowed philanthropic institutions.

Employment by U. S.

Army, active	424	
“ retired	97	
“ reserve and cont.....	13	Total ..534
Navy, active	380	
“ retired	105	“ ..485
Pub. Health commissioned.....	186	
“ “ contract	71	“ ..527
Indian Field Service	102	
Pensions	19	
Panama Canal	37	
Miscellaneous	100	
		1534

(Estimate from announcements of positions open).

Employment by N. Y. State.

Dept. of Health.....	27
Port of N. Y.....	12
Hospital Commission	5
State Hospitals, staff	167
“ “ internes	18
Inst. Malig. Dis.....	5
Psychiatric Inst.	3
“ “ interne	1
Saratoga Reservation	1
Workmen's Compensation	3
Prisons, Asylums, etc.....	37
	279

Employment by Erie Co..... 4

Employment by Buffalo.

Dept. of Health.....	22
Police, Fire, etc.....	4

 26

As nearly as can be estimated, these numbers correspond to 1.15% for the country; 2% for the state; 0.5% for the county and 3.7% for the city, a total, not allowing for the successive slight decrease of the basis on which percentages should be computed, of 7.35%. Owing to fluctuations in the number of physicians employed for partial services, and especially when payment is by fees or for temporary contracts, it has not been possible to secure statistics of this nature, except for certain branches of the government. So far as can be estimated from the various statements received, the salaries and fees amounting to less than \$1200 per capita per annum correspond to half the minimum salary for at least as many physicians as those employed on salaries of \$1200 and upward. Thus, if distributed in larger amounts to fewer men, about 10% of the profession would be supported by the different branches of government, on salaries of \$1200 and upward. Of the 7.35% who actually receive such salaries, the average salary is considerably higher, say \$1500-\$2000. When we consider that the salary is supplemented by office and equipment, clerical help, allowance for transportation and other expenses and that a sufficient force is usually provided for to allow for reasonable vacations, it will readily be appreciated that the salary must be compared with net instead of gross professional earnings in private practice. Thus, to say that 7.35% of the profession are actually supported by the government and that an equivalent of 10% of the profession is thus supported, allowing for partial employment, probably means that considerably more than 10% and possibly as much as 20% of the support of the profession is derived from one branch or another of our government. In other words, we have gone a good deal farther toward the fulfillment of the conception of socialists regarding medical services, than is usually realized.

While considerable time has been spent in the collection of the data presented, they are inevitably far from complete. With the exception of the estimate of 100 physicians employed in various ways by the national government, of whom neither the Civil Service Commission nor any other central bureau has records, errors must be in the direction of omissions while the general tendency is to increase rather than to decrease the positions of public employment. Percentages of physicians employed by the government may, of course, be exaggerated by incompleteness of directory lists. So far as we can judge,

however, by checking up such lists for areas with which we are personally familiar, very few omissions of physicians actually in practice occur while, on the other hand, a considerable number of names are included of persons with medical degrees but who are not in practice. Thus, we feel confident that our statistics err on the side of conservatism for a double reason.

Opportunity and Ambition.

We heard an eloquent sermon, recently, in which the speaker recounted some tragedies of disappointed ambition and as we applied his illustrations to our own profession, indignation arose at the men who tread on the fingers of those beneath them on the ladder which leads to success and great achievement and we thought of the terrible responsibility assumed by those who, for selfish ends or on account of personal preferences for others, stunt the development of men who with a little encouragement or, without obstacles deliberately placed in their way, might accomplish so much.

Then, as the speaker mentioned the case of an elevator boy whose ambition was to become a preacher—"without opportunity and, apparently without the slightest fitness"—and drew a sharp differentiation between ambition "to do great things" and "to be the one to do them," we realized that there were two sides to the question. A good deal of the ambition in all walks of life, is to get the most for the individual, at the least exertion; not to do the most for the people and to work as hard as one reasonably can in developing his inherent ability. Somehow, obstacles have never impressed us much. Often, the opportunities offered are not in accordance with individual fitness and preference and there is a good deal of satisfaction in feeling that one has not been boosted, although it must be admitted that the fable of sour grapes may be applied to this statement.

The speaker also emphasized the fact that it was a good deal more important to have a definite thing accomplished than to have it accomplished by any particular person. It must be admitted that the majority of the men in medicine who owe their chance to social position and personal influence, have made good. In any line of work, the same is true and, the man whom we naturally blame for giving opportunity according to personal favor, undoubtedly feels that it is right to use his acquired power in this direction. And, yet, we can't help wishing that our democratic theories were more literally applied.

Military Preparedness.

While we feel that every periodical published in the U. S. should observe both the letter and the spirit of neutrality, we also feel that certain facts should be squarely faced. No sane person can imagine that in the event of war with any first-class nation, we are prepared for adequate defense. The events of the last year or so have abundantly proved that the prophecy of universal peace is unreliable. The developments and applications of science have rendered it impossible for any nation in the world to consider itself protected by isolation. The fact that we are not commercially isolated has already produced diplomatic friction of a degree that has, in the past, actually led to war. It has been predicted that we must soon or ultimately fight whichever group of nations wins the present war. Without accepting this opinion, it is possible that diplomatic friction, past and future, complicated with the antagonistic claims for loyalty between mother or ancestral country and that of residence, and further complicated by conflicts of commercial interests may involve us in war. At any rate, it is unwise to leave matters to chance and derogatory to our self respect to look for peace as a matter of forbearance.

The argument as to the adequacy of a citizen soldiery rising to the occasion with a burst of patriotism is not supported by history. Unpreparedness brought the disgrace of a captured national capital and of a campaign of little credit in the War of 1812. It protracted the Civil War from a conservative estimate of 90 days to four years and multiplied the cost in lives and money many times more. The Mexican War was on a numerically small scale, fairly commensurate with our standing army, was mainly fought by well trained troops and showed the results of careful training. The Spanish War, even though on a small scale showed up our unpreparedness, both military and more particularly from the standpoint of military hygiene. The Revolution is, therefore, the only war on which the theory of spontaneous rallying to the support of the country has been seriously based. It is only the most superficial consideration of history that warrants such a moral. Practically every man and boy in the colonies was proficient in the use of such weapons as were in vogue at the time. A reserve of veterans from the numerous colonial fights had been available during practically the whole colonial period. Organization and drilling had been carried on for several years. The revolution had been recognized as imminent, though perhaps not regarded as so serious and radical as it proved to be, for over a century, and indeed, one colony had started it almost exactly a century previously. With due regard for differing conditions of communication, transportation of troops,

provisions of heavy armament, extant means of feeding and caring for the health of the men, and, most important of all the conceivable number of invading forces, our Revolutionary forces were in a state of preparedness far beyond anything demanded at present except by extreme militarists.

But we wish to urge military preparedness, more from the standpoint of peace than of war. The wonderful efficiency of Germany may be explained by the fact that she has given Kultur an active instead of a passive meaning. By a thoroughly systematized plan of economy and efficiency, she developed the most powerful army known to history and, up to the declaration of war, without detracting from the prosperity and strength of the nation. Dr. Lucien Howe has recently written of the advantages of military training, particularly physical and as developing strength of character. (See Abstracts). This is a phase of militarism that would pay for itself, if none of the men ever carried a gun. It is one, too, in which the medical profession should be especially interested. We have already pointed out that it is not impossible that the development of wireless electricity may eliminate the use of present explosives from warfare. At any rate, wars of the immediate future will be fought largely with gasoline, good roads, anti-typhoid vaccination, sanitary latrines, machines for transportation and excavation, and many other material things and methods which have no direct bearing on the destruction of life but which rather conduce to the welfare of society whether war comes or not. Preparedness for war involves a long period of careful planning. We may well make a beginning with those items which do not necessarily tempt to war and which will count for human health and efficiency and general prosperity and convenience.

Please accept our apology for several mistakes in printing in the September issue. With one exception, these would lead to no confusion. In the editorial on the Prevention of Typhoid, however, we were made to say that it was **not** mainly a vacational disease—the exact reverse of our opinion.

Hereditary Drunkenness. Geo. B. Simpson, of Parkersbury, W. Va., Med. Summary, Sept., relates a case in which a habitually drunken father impregnated his wife while drunk. The offspring, now a young man, presents the constant appearance of drunkenness except after taking a drink, when he becomes sober.

BOOK REVIEWS

Books mentioned may be inspected at and ordered through this office. So far as possible, books received in any month will be reviewed in the issue of the second month following.

Fractures and Dislocations. Miller E. Preston, A. B., M. D., Denver; C. V. Mosby Co., St. Louis. 813 pages, 860 illustrations, \$6.50.

This work is divided according to anatomic regions and includes also the following chapters on special subjects: terms and definitions; use of the X-Ray, by H. G. Stover of Denver; open treatment of fractures, bone transplantation, treatment of compound fractures and dislocations. It is thus adapted both to systematic study and to ready reference in an emergency. Diagnosis, therapeutics and other points of practical and theoretic interest are considered in detail under each regional subdivision. Dr. Stover deserves credit as joint author while all of Dr. Albee's work on autogenic bone grafting is included. We need not dwell on the value of the work to the surgeon. Practical experience, and thorough study of literature mark the authorship while the publishers have facilitated the work of the reader by clearness of type and illustrations, neatness of arrangement, etc. What we wish to emphasize, is the limb and life saving importance of the work to the occasional surgeon, in other words, the general practitioner. No book can insure personal skill, judgement and dexterity but this book can, at least, put the man, confronted with a surgical emergency, almost immediately in possession of all available information as to the particular surgical problem with which he has to deal.

Operative Gynecology. Harry Sturgeon Crossen, M. D., St. Louis. C. V. Mosby Co., St. Louis. 670 pages, 770 original illustrations, \$7.70.

This volume deals exclusively with the operative treatment of the female generative organs, excluding adjacent organs and well understood principles of surgical technic in general. Having thus limited his field of authorship, the fullest discussion of the problems arising within it, but without verbal prolixity, has been the aim of the author. It should be clearly understood that both abdominal section and other forms of operation, major and minor and both destructive and conservative operations are included and that the external genitals and various special problems are included. Medico-

legal points are also discussed. So far as is humanly possible, the author has placed the reader in the position of the trained surgical gynecologist, for each problem.

X-Rays: How to Produce and Interpret Them. Harold Mowatt, M. D., Temporary Lt., British Army Medical Corps, Meebut Indian General Hospital. Published by Oxford University Press, Am. Branch, 35 W. 32 St., N. Y. 204 pages, copiously illustrated, \$3.00.

The title of the book give a good idea of the practical way in which the subject is treated, and also indicates that the main consideration is diagnostic rather than therapeutic. As a curative measure, X-Rays are a two-edged sword and while much valuable work is being done along therapeutic lines, the time has not arrived at which positive statements of possibilities and limitations can be made. It is not so generally understood that the diagnostic use of the X-Rays is beset with the same dangers and only slightly less direct. Not only is the wrongly operated X-Ray tube dangerous to operator and patient, but the misinterpretation of shadows, whether observed by the eye directly or after recording them on a photographic plate, subjects the patient to the same indirect dangers as a false diagnosis made by any other means. It may even be said that we are not past the false conception that by the X-Rays, we look through the body and observe conditions concealed from the naked eye. A work like the present, embodying both scientific research and practical experience, tempered by common sense, is a great aid in making the X-Rays valuable and reliable.

Simplified Infant Feeding. Roger H. Dennett, B. S., M. D., New York. J. B. Lippincott Co., Philadelphia, 355 pages, 14 illustrations, \$3.00.

An original point in the arrangement of this work is the substitution for a table of contents, of a preliminary chapter containing a synopsis of the text and thus giving a bird's-eye view of the subject. A somewhat delicate but very necessary problem is solved by appending an analysis of the proprietary foods commonly used. Indications for special diets are considered by diseases and disturbed conditions and the whole work is of a practical nature and evinces great care and much experience.

A Text Book of Surgery for Students and Practitioners. By George Emerson Brewer, A. M., M. D., Professor of Surgery, College of Physicians and Surgeons, New York; Surgical

Director, Presbyterian Hospital; Consulting Surgeon, Roosevelt Hospital, assisted by Adrian V. S. Lambert, M. D., Associate Professor of Surgery, Columbia University; Attending Surgeon, Presbyterian Hospital; and by members of the surgical teaching staff of Columbia University. Third edition, thoroughly revised and rewritten. Octavo, 1027 pages, with 500 engravings and 23 plates in colors and monochrome. Cloth, net, \$5.50. Lea & Febiger, Publishers, Philadelphia and New York, 1915.

This treatise covers first the general principles of surgery and then takes up the systems and apparatuses seriatim. The colored plates are especially good. The attention paid to the thyroid gland, the thymus and status lymphaticus, the lymphatic system, mediastinum, etc., is especially valuable.

Practical Materia Medica and Prescription Writing. Oscar W. Bethea, M. D., Ph. G., F. C. S., New Orleans; F. A. Davis Co., Philadelphia.

The part on Materia Medica is arranged alphabetically by drug names. That on Prescription Writing is conservative in its advocacy of Latin and the greater use of the apothecary's system. It enters into a good many details as to labeling, preserving records, telephoning prescriptions, economy in quantity ordered, arrangement of blanks, etc., not usually considered in books. A large number of actual prescriptions are presented, mostly in script and errors in nomenclature, use of Latin, incompatibility, dosage, etc., are pointed out. This is a highly practical way of teaching correct prescription writing.

Amnesia and Analgesia in Parturition (Twilight Sleep). Alfred M. Hellman, M. A., M. D., New York; Paul B. Hoeber, N. Y. 137 pages, \$1.50.

This is a careful study of a much discussed subject, presenting not only the Freiburg method but various other methods of painless labor. Case reports and statistics and a full bibliography are given. The conclusions are conservative. A novel feature of this work is that supplementary pages will be published from time to time and will be sent free to purchasers of the book, on request. Blank pages are also left for personal bibliographic notes.

Cancer: Its Study and Prevention. By Howard Canning Taylor, M. D., Gynecologist to the Roosevelt Hospital, New York; Professor of Clinical Gynecology, Columbia Univers-

ity; Member American Society for the Control of Cancer, etc. 12mo, 330 pages. Cloth, \$2.50, net. Lea & Febiger, Publishers, Philadelphia and New York, 1915.

This work, though small in volume, shows evidence of careful study and the facts presented are supported by statistics, so far as possible. For example, the vexed question as to whether cancer is really increasing or not is not categorically answered but English-Welch statistics show that the ratios of cancer deaths to living population and to total deaths are rapidly changing so as to indicate such an increase.

A Synopsis of Medical Treatment. By George C. Shattuck, M. D., Second revised printing of the second edition, 185 pages, price \$1.25. W. M. Leonard, Boston, Publisher.

This book is based on the post graduate course at the Massachusetts General Hospital. The conditions discussed are grouped under Cardiac Insufficiency, Nephritis, Acute Infections (including various respiratory conditions), Gastric and Duodenal Ulcer, (including a number of other gastro-enteric diseases), and the work also epitomizes materia medica, 30 drugs being discussed in some detail, 16 listed for occasional use and 21 for common use, about which, of course, no two persons would agree. The only criticism that we would make on such lists is that a drug—or other therapeutic method—may be used very rarely and still should be remembered as being indicated to the extent of 50, 75, or 100 per cent. in occasional instances. Moreover, the frequency of use depends largely on the personal equation and on local factors of incidence, etc. Personally, we have found it advisable to keep well in mind about 300 drugs as efficient in conditions likely to be encountered even in special practice. But there are a surprising number of “drugs,” alcohol, salt, ether, chloroform, etc., kept on hand in offices that are not usually included in any attempt to list workable drugs.

La Vaccination Anti-Typhoidique. Dr. H. Mery, Paris. Librairie J. B. Bailliere et Fils, 19 Rue Hautefeuille, Paris. 95 pages, 1 F. 30.

This is one of the familiar blue-covered monographs of the series of *Les Actualites Medicales* (present day medicine) published by our French agents. The history of anti-typhoid vaccination is traced from the memoir of Chantemesse and Widal in 1888. Three general methods are recognized: 1 (a) By bacilli killed by heat (Wright, Chantemesse, Pasteur Institute, Pfeiffer and Kolle, Russell); 1 (b) By bacilli killed by

antiseptics (Semple & Matson, Levy & Blumenthal, Vincent (multivalent); 2 By living bacilli, Besredka, Ch. Nicolle, A. Conor & Conseil). 3. By autolysates, bacillary extracts (Wassermann, Shiga & Neisser, Conradi, Bassenge & Mayer, MacFayden & Rowland, Vincena, Lumiere & Chevrotier, the last intended for internal administration). Practically, the method is limited to the use of bacilli killed by heat (Wright, Chantemesse), bacilli killed by ether (Vincent), and the living cultures (Besredka and Ch. Nicolle). The theory of immunization technique etc., are thoroughly discussed and various statistics are collated, showing the value of the procedure. This is one of the most practical treatises on the subject that has appeared, it is international in scope and deserves careful reading by the profession of this country.

The Principles of Human Physiology. New (2nd) edition By Ernest H. Starling, M. D., F. R. C. P., F. R. S., Jodrell Professor of Physiology in University College, London. Octavo, 1271 pages with 566 illustrations, including 10 in colors. Cloth, \$5.00, net. Lea & Febiger, Publishers, New York and Philadelphia, 1915.

This work already has an established reputation. Physiology has, in recent years, made great progress, not only in the extension of knowledge along lines familiar to the older students but by the development of new conceptions of the phenomena of life. The following chapters deserve special attention: The mechanism of organic synthesis which materially assists the grasp of organic chemistry. The energy of molecules in solution. The properties of colloids, which partially bridge the gap between physics and chemistry. The defense of the organism against infection, and also various parts of other chapters, dealing with ferments and hormones and discussing the interrelations of the ductless glands. As might be expected, also, an increasing practicality is noted, not in the superficial sense but as the thorough understanding of the action of the various viscera in nutrition and elimination, aids the comprehension of disease and throws light on methods of diagnosis and treatment.

Collected Papers From the Research Laboratories of Parke, Davis & Co., Detroit. Compiled by Dr. E. M. Houghton, Director. This collection comprises Nos. 53 to 74, reprinted from various magazines, in uniform type and on uniform paper.

The range covered is bacteriology, the preparation of serums, pharmacology and physiology. Except by their gen-

eral application to practical medicine, these papers do not bear especially on pharmacology, much less on the use of products of this well known firm. On the contrary, the work is of the highest scientific value and has been conducted in a scientific spirit without ulterior motives. The papers are exceedingly valuable and deserve careful study both by laboratory workers and those who wish to keep in touch with scientific advance along medical lines.

Habits That Handicap. Dr. Charles B. Towns, The Century Co. New York. 289 pages, \$1.20.

This book covers alcohol, tobacco and the various habit forming drugs usually so considered. It discusses psychology, the need of special treatment and the function of sanatoriums. While especially intended for the laity, the book will prove interesting to the medical profession.

Flies and Diarrheal Disease. Publication No. 91, New York Association for Improving the Condition of the Poor.

The Bureau of Public Health and Hygiene of the New York Association for Improving the Condition of the Poor has issued a special publication entitled, "Flies and Diarrheal Disease," descriptive of its three months study in the homes of over a thousand infants in New York City on the relation of flies and diarrheal disease. Special attention has been given such influencing factors as dirt and artificial feeding, and their relative importance determined. A full description of the study with its important conclusions may be obtained by request from Philip S. Platt, Superintendent of the Bureau, 105 East 22d St., New York City.

TOPICS OF PUBLIC INTEREST.

Statistics of Medical Education. (J. A. M. A., August 21, 1915). The total number of medical graduates for 1915 was 3,536 the smallest number since 1890 and only slightly greater than in 1880. The maximum number of graduates was 5,747 in 1904. The diminution in graduates from 1914 to 1915 was only 58 but the number of medical students decreased from 16,502 to 14,891 so that there must be a considerable further decrease for the next three years, at least. A favorable economic factor noted for several years is that, in the aggregate, the senior classes of medical schools have shown a steady decrease in numbers, in other words that there have been only

slight fluctuations in matriculation and that, generally speaking, the number of graduates has been close to a quarter of the total number of students, indicating a slight economic loss in taking partial courses. Sectarian graduates are now confined to a few homoeopathic and eclectic schools, number about 7% of the total and do not present any real problem in medical solidarity. Women graduates are relatively fewer than several years ago, averaging less than 4% of the total.

Preliminary education is now on a highly satisfactory basis. The percentage of graduates holding bachelor's degrees has gradually increased from 15.3% in 1910 to 24.3% in 1915 and is, indeed, 25.5% for graduates of "regular schools." The number of medical schools has decreased, mainly by mergers, from the maximum of 162 in 1906 to 95 in 1915. Of these 83 are regular, 8 homoeopathic and 4 eclectic. 83 of the 95 medical schools require at least one year of college study beyond a full high school course and 39 require two years. Of the 39, 7 will require 2 years college work in a year or two. 66 colleges are classified as in Class A; 17 in Class B; 12 in Class C. 74.4% of the graduates of 1915 were from Class A colleges, 19.4% from Class B, 6.2% from Class C.

The Hospital of the Good Shepherd, Syracuse, will be used for clinical teaching in connection with Syracuse University.

Influence of War on Births by Sex. There has long been a belief that, in some unknown way, war tended to compensate for the preponderance of male deaths by inducing a preponderance of male births. Henri Coupin, *Presse Med.* July 26, confirms this idea by the following statistics: Of 559 children born to fugitives from Galicia and Bukovina, 314 were boys. In Vienna, since October 1914, the sex birth rate has changed from 108 males: 100 females to 140:100.

Typhoid in Cincinnati, 1914.

	Cases.	Deaths.
Imported	28	7
Away from city within 30 days prior to illness	36	4
Drank well and cistern water	8	1
Drank water directly from river, springs, etc.	16	1
Drank turbid water following break in city main	4	0
Diagnosis doubtful	4	3
Source of infection unknown	45	7
Total	148	23

Weather Statistics. There has been a general impression that the past summer has been marked by an unusual amount

of rain. Judging from the condition of the roads and fields and the complaints by farmers of ruined crops, especially of grain which could not be cut and mowed away until it was dead ripe and darkened, and of potatoes rotted in the ground, this impression seemed correct. The U. S. Weather Bureau, Buffalo station, however, reports as follows: May, 13 days rain, (0.01 inch or more on a day); June, 11 days; July, 16 days; August, 12 days. The total rain fall by months was: 1.86 inches, 1.72, 3.37, and 6.19; total for four months 13.14 inches, about half an inch more than the average. The August total was nearly double the average but, on account of an unusually dry April, the total rain fall for the first eight months of the year 1915 is slightly below the average. The medical profession is well aware of the danger of trusting to general impressions, although humanly prone to be led astray by them. It is worth while to inquire however, whether the genuine excess of rain during August, has had any measurable influence on disease incidence, either on account of exposure or by overflow of ordinary drainage channels during the vacation season.

Interne Wanted at St. Luke's Hospital, Utica. Inquire at this office or of our associate editor, Dr. Willis E. Ford of Utica.

Medical Inspection of Schools at North Tonawanda. Dr. F. W. Bentley's report for the last school year included 2,050 examinations. 426 showed defective vision, 367 defective hearing, 114 enlarged glands, 214 enlarged tonsils, 278 bad teeth.

The Buffalo Homoeopathic Hospital has received \$9,500 by bequest of the late Dr. Edward Gregg of Pittsburgh, \$500 having been deducted for the Pennsylvania state tax. An inheritance tax on any reasonable sum, amounting to a year's income from the principal is of questionable propriety and certainly, money left to charitable institutions of any kind should not be taxed at all.

Fire in the Garage of the Buffalo General Hospital, early in the morning of September 7, destroyed one ambulance and badly damaged another.

New York State Vital Statistics for the first half of 1915, as compared with similar statistics for 1914 and the average for 1910-1914, show slight improvement all along the line, except for cancer, which has increased to 89.8 deaths per 1,000 population, as compared with 89.1 for 1914 and 84.9 for 1910-1914, and suicide, the rates being respectively 16.8, 15. and 15.5. Births have increased from 23.4 for 1914 and 1910-1914

to 24. Deaths from all causes have decreased from 16.1 the average 1910-1914 and 15.7 for 1914 to 15.3.

The American Medicine Gold Medal awarded annually for most conspicuous services in medicine and surgery has been awarded this year to Surgeon-General Rupert Blue of the U. S. Public Health Service.

Obstetric Clinics have been started by the District Nursing Association of Buffalo, at 43 Front avenue and 1553 Broadway, under the supervision of Mrs. Annie L. Hansen, Supt. of the D. N. A. and of Drs. Francis C. Goldsborough, Elmer Clarke and Lorrimer. Especial attention will be given to ante-natal care and, after delivery, the "Baby Welfare Nurse" will attend to the children.

The Emergency Hospital of Buffalo graduated, September 8, Misses Mabel Decker, Leola Phillips, Ellen Gallagher and Angeline Neurohr. Dr. Francis M. Carr presented the diplomas.

Infantile Paralysis at Erie. 6 cases occurred in the first seven months of this year, 44 between August 1 and September 8. All children under 12 will be excluded from places of amusement and if the epidemic increases, the schools will be closed. The State Health authorities are investigating and it is to be hoped that definite conclusions will be reached regarding the infectious element. The epidemic was undoubtedly furthered by the flood. By the way, the efficiency of the Pennsylvania State Constabulary was again demonstrated during the flood. This body of men, partaking of the nature of police and of regular soldiers obviates, to a large degree, the economic and sociologic disadvantages of calling on the national guard, is available without delay and in its active and past members affords a nucleus of national defense. We hope that New York will adopt such an arm of state service.

Population of New York State. The 1915 state census shows a population of 9,773,817; Greater N. Y. City having 5,066,222; the rest of the state 4,707,595. The increase for five years is, respectively, 960,864 (11% nearly), 300,661 (6½% nearly), 660,203 (16% plus). Manhattan showed a decrease of 187,481, due largely of course to the lack of vacant space for building and the encroachment of business on residence districts. It should be remembered that for the last year, immigration has been almost totally suspended, if not actually more than balanced by emigration and that, in the past, a disproportionate number of immigrants have remained in N. Y. City. On

the whole, the normal increase of population for the state has occurred and mainly for the smaller communities.

Educational Statistics. In 1914, 216,493 students were registered in 567 colleges, and professional schools in the U. S. Of these, there were 139,373 men and 77,120 women, increases over 1913 being 14,262 total, 10,729 men, 3,533 women. The increase of men in a period of financial depression is surprising and it will be noted that the increase of women was disproportionately low—possibly because, having successfully striven for higher education, women are now more interested in getting the franchise. About 6.5% of the total population are included in the four-year age period covered by the college or professional school course and about 2.25% of the total population were actually taking such courses. For males, the respective percentages are about 6.5% and nearly 3%. It occurs to us that a rather serious economic problem is here presented.

“New” Cure for Leprosy. It is reported that 23 lepers have been discharged cured from the Culion colony, Phillipines, after treatment by Dr. Mercado, a native physician, with chaulmoogra oil.

Examinations for Assistant Surgeon, U. S. Public Health Service, will be held at various places, November 1. Application should be made to the Surgeon General at Washington, promptly.

Vaccinations, according to the N. Y. State law, may be made only by licensed physicians and must be reported on cards issued by the State Health Department.

The University of Buffalo opened its 70th session, September 20. Addresses were made to the assembled students by Rabbi Copold and Dr. T. H. McKee, the new Dean of the Medical Department. 42 freshman medical students are registered.

Extermination of Typhoid. The U. S. Public Health Service estimates that 300,000 persons will have been immunized in 1915, as compared with 100,000 last year. In N. Y. State, the deaths for the first half of 1915 were only 5: 100,000 population. In our opinion, there are three principal dangers: gross neglect by cities and villages of well known means of controlling typhoid, under present conditions, almost inevitable neglect of precautions on farms and at summer resorts, and carriers. While vaccination is not claimed to be absolute protection nor to be permanent, its efficiency is very great and it will undoubtedly reduce the incidence. As even a single case

may infect many others, such reduction progresses in a geometric series. Moreover, if vaccination can be made universal and can be improved in technic, it will have the inestimable value of rendering unnecessary expensive engineering works aimed at water supplies. In Paris, typhoid has been for several years, almost as rare as diabetes and leucocythaemia and such cases as are seen in the hospitals are almost entirely from outside the city proper.

Abortion Following Rape is not to be legalized in France. After much discussion, pro and contra, this is the almost unanimous verdict of the medical profession and has undoubtedly had its influence on the civil authorities. The offspring of German soldiers will be cared for by the state.

The Knights of Columbus have requested action by the managers, to establish a national institution, at a cost of \$250,000.

Four Cases of Infantile Paralysis have been reported in Elmira this month.

SOCIETY MEETINGS

Brief reports and announcements of meetings of societies of Western New York, and those of general scope, are requested from Secretaries. Copy should be on hand the fifteenth of the month. Full transactions will be published at cost of composition.

DOCTOR: Is your Society properly represented here? If not, please bring our standing announcement to the attention of the members.

The American Medical Editors' Assn. will meet in N. Y. October 18 and 19, with headquarters at the Hotel McAlpin, under the presidency of H. Edwin Lewis. Joseph McDonald, Jr., is secretary and treasurer, with offices at 92 William Street, N. Y.

The American Laryngological Assn. held its 27th annual congress at Niagara Falls, Ont., June 1-3, as previously announced. We have received from the Abstract Editor, Emil Mayer, of N. Y., proof sheets of proceedings for publication but, owing to the scope of this Journal and the fact that the matter would fill at least one whole issue, we regret our inability to do so. Any one interested, however, may consult this report at our office or may borrow it.

The National Assn. for the Study and Prevention of Tuberculosis has inaugurated a campaign to have every one examined by a physician on December 8. Special instruction in hygiene for school children and the discussion of tuberculosis from over 125,000 pulpits are included in the plan. The Buffalo Express raises the question whether physicians will charge for examinations and whether the tuberculosis propaganda have not been overdone.

The American Public Health Assn., The Sanitary Officers of the State of N. Y. and the N. Y. State Sanitary Officers' Assn. held a joint congress in Rochester, September 6-10, as guests of the **Rochester Public Health Assn.** 110 addresses and 250 medical and sanitary papers were read.

The American Association of Obstetricians and Gynaecologists, of which our esteemed predecessor, Lt. Col. W. W. Potter, was long Secretary, held its 28th annual meeting in Pittsburgh in September. Dr. Hugo J. Panzler was elected President and Dr. Herman E. Hayd of Buffalo, Treasurer. Indianapolis was selected for the 1916 meeting.

The Eighth District Branch of the Medical Society of the State of New York held its tenth annual meeting at Olean, September 21 and 22. The officers were: President, Carl G. Leo-Wolf; Vice-president, Albert T. Lytle; Secretary, Edward A. Sharp; Treasurer, Charles A. Wall, all of Buffalo. Invited guests were: James C. Bloodgood of Baltimore and L. Duncan Bulkley of N. Y. Officers were elected as follows: President, A. T. Lytle; Vice-Presidents, Edward Torrey, Olean; W. Ross Thompson, Warsaw; Secretary, L. C. Lewis, Belmont; Treasurer, F. H. Vanarsdale, Belmont.

The Medical Brotherhood (Fraternitas Medicorum), has been organized, at the initiative of Dr. S. J. Meltzer of New York, an active member and ex-president of the American Gastro Enterologic Assn., to further the peace movement and international good will and co-operation among medical men, in spite of war. Nearly 1500 physicians have already been enrolled in this country. There are no dues but contributions will be accepted to defray incidental expenses. Physicians are urged to co-operate in this movement. The officers are as follows:

Executive Committee—(Residents of the City of New York) President, Dr. S. J. Meltzer, Member of Rockefeller Institute; Vice-Presidents, Dr. Rufus Cole, Director, Rockefeller Hospital; Dr. S. Josephine Baker, Director, Department of Child Hygiene; First Secretary, Dr. Wm. J. Gies, Professor of Biological Chemistry, Columbia University; Second Secretary, Dr.

Harlow Brooks, Professor of Clinical Medicine, N. Y. University and Bellevue Hospital Medical College; Treasurer, Dr. Robert T. Morris, Professor of Surgery, Post-Graduate Medical School.

The Medical Society of the County of Chemung held its regular meeting at Elmira, September 21. Scientific Program: Title not announced, H. H. Crum, Ithaca; Our Whooping Cough, Anna Stuart; Heterodox Therapeutics, G. B. R. Merrill; Newer Therapeutics, Wm. Brady. C. F. Abbott, President, C. L. Carey, Secretary.

Dr. William Cain entertained the members of the **Elmira Clinical Society** at its Annual Outing, on September 1st. An automobile trip was taken to Breesport, where various games and a corn-roast were enjoyed.

The Western N. Y. Homoeopathic Medical Assn. met at the J. N. Adam Memorial Hospital September 22, under the presidency of Dr. R. Montford Schley of Buffalo. A demonstration of cases was given by Dr. John H. Pryor of Buffalo. About 50 were present.

PERSONAL.

Announcement of removal, travel, and other matters of interest are requested. Please report errors in the listing of any physician in the State and other directories, that we may co-operate with the State Society in securing a correct list.

Doctors Leet and Selleck (U. of B., 1915), have taken interne services at the Arnot-Ogden Hospital at Elmira.

A complimentary dinner was tendered to Dr. R. P. Bush at Cold Brook Club on August 24th, 1915, by the physicians of Chemung County.

Dr. Walter J. M. Wurtz of Buffalo, announces the removal of his office from 316 Pearl Street to 1195 Main Street.

Dr. Bergren F. Illston of Jamestown is candidate for coroner of Chautauqua Co. on the Republican ticket.

Dr. James Wright Putnam of Buffalo returned early in September from a month at Prout's Neck.

Dr. W. H. Marcy of Buffalo, returned September 10 from his summer home at Webster, Mass.

Dr. John H. Finerty of Buffalo has bought 96 acres of land with 1300 feet front on Lake Erie in the town of Evans, including a stone house built in 1838 and used as a tavern in stage-coach days, by Levi S. Morsman.

Dr. Irving W. Potter, of 420 Franklin Street, Buffalo, announces that after September 1, he will specialize in obstetrics and obstetric surgery.

Dr. Julius H. Potter of Buffalo is making a motor tour of a month to the Lake Champlain region, expecting to return early in October.

Dr. Karl F. Eschelmann of Buffalo made a motor trip to the east of the state, in September.

Dr. Wm. Ward Plummer of Buffalo, returned September 16 from a motor trip to Provincetown, Mass.

Dr. Adele Gleason, formerly of Buffalo, is serving in the American Hospital at Neuilly, Paris.

Dr. Francis M. O'Gorman of Buffalo has been appointed Attending Gynaecologist to the Sisters' Hospital.

Dr. Joseph P. Brennan of Buffalo, announces that he is paying special attention to weak and flat foot, with offices at 399 Delaware Avenue.

Dr. George Thomas Moseley of Buffalo was married to Miss Isabella Wells of Concord, Mass., July 6.

Dr. Wm .G. Bissell, Bacteriologist of the Buffalo Health Dept., appointed to fill a temporary vacancy in the board of examiners for the state, has received the formal appointment for a term of four years.

Dr. Rudolf C. Miller has returned to Buffalo and located at 206 Bissell Avenue.

Dr. Homer J. Grant of Buffalo spent August on the New England coast.

The home of Dr. M. N. Brooks of Springville was struck by lightning on the night of August 24.

OBITUARY

Readers are requested to report promptly the death of all physicians in Western New York, or former residents of this region, or graduates of any medical school in Western New York, and to notify the families of the deceased of our desire to publish adequate obituary notices.

Dr. Nelson Waltow Wilson, Buffalo 1898, the well known genito-urinary surgeon of Buffalo, died suddenly in a New York theatre, August 30, while on a vacation. He was born July 30, 1865, in New York City. His early manhood was devoted to newspaper work, on the N. Y. Times, World and Sun. In 1890, he came to Buffalo as City Editor of the News. He married Miss Charlotte Inman, February 17, 1892. During the Spanish War, he acted as Post Surgeon at Ft. Porter and was Assistant Surgeon at the Pan-American Exposition and one of those who attended the late President McKinley. He was for several years, one of the editorial staff of this journal. He was on the staff of the Buffalo General Hospital and was Instructor in G. U. Diseases in the University of Buffalo. He was a Fellow of the American College of Surgeons, First Lieutenant in the U. S. Medical Reserve Corps. He was a 32d degree Mason and a member of Ancient Landmarks Lodge and held membership in the Buffalo and Park Clubs.

Dr. William L. Parmenter, Homoeopathic of Cleveland, 1872, died after a few days' illness at Port Stanley, Ont., September 16, aged 81. The funeral was held from his late residence in Buffalo, September 19. He was born in Gananoque, Ont., where he spent his boyhood. He graduated at Kingston and assisted in the first survey of Canadian railroads, before engaging in the study of medicine. He was a practitioner of Buffalo from 1872 until a few years ago, when he moved to Port Stanley but spent much of his time in Buffalo. He is survived by two sons, Dr. John Parmenter, formerly of Buffalo, but for several years residing at Geneva; and Dr. Frederick J. Parmenter of Buffalo.

Dr. Charles Shupe, Buffalo 1877, died at his home at Attercliffe Station, Ont., May 6, from heart disease.

Dr. George William Hackett, Buffalo 1895, was killed by his auto going over an embankment while turning out for a team, August 11. He was the father of Dr. Lawrence Hackett, a Buffalo graduate also.

Dr. Paul Ehrlich, noted for his work in standardizing diphtheria antitoxin, developing the side-chain theory and discov-

ering salvarsan and neosalvarsan, died at Berlin, August 20, aged 61.

Dr. Carlos John Finley, noted for his work in yellow fever, died in Havana, Cuba, aged 81, August 20.

Dr. Francis Waters Gallagher, Buffalo 1877, died at his home in Los Angeles, July 20, aged 62. Until two years ago, he practiced in El Paso.

Dr. Margaret E. Hennessey, Hahnemann of Chicago 1888, died of cancer of the uterus at La Salle, Ill., April 23, aged 58. She was a practitioner of Utica.

Dr. Comfort Edson Peck, Buffalo 1873, Bellevue 1879, died at his home in Highland Park, Ill., September 2, aged 69. He was vice-president of the Bowman Dairy Co. for 30 years.

Dr. Hiram Parker Trull, Buffalo 1868, died at his home in Williamsville, N. Y., September 14, aged 72. He had been an invalid for several years.

Dr. Austin Flint, Jefferson 1857, the noted alienist of N. Y. City, died suddenly of apoplexy at his home, in his 80th year, September 22. His father, the physiologist, was the founder of this journal and he himself was on the editorial staff for a few years.

ABSTRACTS

Stomach Carcinoma, J. C. Bloodgood, Baltimore, J. A. M. A., June 19, 1915. The series studied consists of 184 cases at Johns Hopkins Hospital in the last 25 years. In 45, there was no operation, in 49 exploration only, in 41 gastro-enterostomy—total “inoperable” 134. Resections 49. Of the 49 operable cases, 3 have survived 5 years or longer and may be considered cured. The maximum possible percentage of cures—providing all living patients show no recurrence—is 20, that actually accomplished for 21 resections up to 1910, 10%. Dating the duration of the disease from the beginning of “continuous symptoms” and not considering vague histories of years of indigestion, previous ulcer, etc., the statistics are as follows: 1-3 months, 8 operable among 27 cases; 3-6 months, 7 among 30; 6 months-1 year, 8 among 37; 1-2 years, 6 among 27; 2-5 years, 9 among 30; over 5 years, 2 among 8; totals: inoperable 34, exploration only 46, gastro-enterostomy 39 (total “inoper-

able'' 119) resection 40 (total cases whose duration was estimated 159). Of the three apparently cured cases (one referred by M. Hartwig of Buffalo died of other cause 7 years later and showed no evidence of return of cancer) the durations were 8, 11, 11 months, respectively.

It will be remembered that it is contrary to the precedent of this journal to abstract from the J. A. M. A. or other weekly American journals, not from any hostility but because we feel that every one of our subscribers should receive the first which includes extensive reviews of the others and it is our endeavor to present matter not duplicated in the libraries of our subscribers. In this instance, we have been especially asked to comment on this article. The small number of cases is, at first, surprising, even disappointing but, on second thought, favorable in itself. For example, the writer has been deterred from presenting statistics from private practice partly because of the feeling that the series possible would be insignificant. But almost any surgeon or internist could in 25 years collect notes of series large enough to be of great value—perhaps of more value than large series representing the work of different men and not susceptible of so careful analysis. For a prominent author representing a famous institution to present thus candidly, a modest number of cases, is in itself an incentive to others.

Perhaps the best point made by the author is his inclusion of explorations and gastro-enterostomies with inoperable cases, without explanation or qualification. In our experience, the majority of explorations in cancer have been entirely without justification. That is to say, they have been performed without due regard to antecedent history and medical methods of diagnosis. In fact, the time to explore is before the diagnosis is made so that a series of explorations in cancer is merely part of a much larger series including many other conditions. Gastro-enterostomy, in the majority of cases does not deserve to be considered as an operation but only as a vivisection. Even with water-tight pyloric obstruction, life can be prolonged for about 40 days and if the pylorus is even slightly patulous, medical treatment can, without immediate risk, keep the patient comfortable and relatively free from intoxication and cachexia, for quite as long a time as that to be expected after palliative operation—and without narcotics except toward the end. These statements, it should be admitted, are subject to individual exceptions which should be carefully studied jointly from the standpoint of internal medicine and of surgery.

The data as to operability in reference to duration of disease are especially valuable because they are disappointing and contrary to the optimism prevalent as to early cancer. It will be noted that the operable cases which had presented continu-

ous symptoms for only 1-3 months were a trifle less than 30% of all seen at this period, that exactly 30% of the 2-5 year cases were operable, that the lowest percentage of operable cases (22%) occurred in the six months-1 year period and that the average for the whole series of 159 cases was 25%. Note also that all three of the cured cases (conforming to the requirement of surviving without evidence of recurrence for at least five years) came in the six months-1 year period. From one standpoint, these facts are encouraging: there is hope of cure in cases long enough under observation or with long enough history to enable a diagnosis to be made with reasonable probability; at least, such cases are not physically speaking inoperable. But how do they fit in with the slogans that cancer is originally a local, eradicable process; that death is due to neglect on the part of the original attendant; that we can get a 25% rate of cures in favorable cases; that the laity should be taught to report early and that if they do, they stand a good chance of cure? The 1-3 and 3-6 months sub-series numbered, respectively 27 and 30, with only 8 and 7 cases physically available for radical operation and not one of these cases was cured. Our own experience—approximately equal in the total—warrants the opinion that the statistics are not misleading on account of accidental bad luck in the occurrence of cases, but that they represent actual, average conditions.

The plain fact of the matter is that, so far as cancer is concerned, the next move is not that of the surgeon, in perfecting his operative skill, nor of the clinician in developing his diagnostic art, nor of the medical publicist, official or voluntary in educating the laity but of the pathologist. We do not know whether cancer is exogenic or endogenic in origin. We do not know how long it exists in a latent—not merely an unrecognizable—state. We have no specific test for its diagnosis except such as depend on processes developed after it has reached a dangerous stage and for the most part coincident with clinical signs and symptoms sufficient for a reasonably probable diagnosis, nor are such specific tests pathognomonic.

Colloid Metals in Typhoid. Maurice Villaret of Paris in *Paris Medical*. The solutions used containing 1/4 m.g. per c.c. Colloid silver, gold and occasionally platinum and rhodium are used. The dose is about 10 C.C. daily, administered slightly above the body temperature, subcutaneous and intra-muscular injections being as efficacious as intravenous and safer. In some cases, 10 C.C. of silver was administered along with 2 C.C. of gold. This method does not notably affect normal cases of typhoid but is especially indicated in those with septic complications. Aseptic "abscesses" sometimes occur spontaneously and may be provoked by injections of turpentine or

of etherized camphorated oil and seem to favor the fixation of the infection.

Diagnosis of Syphilis by Laboratory Methods, by Henry H. Morton, M. D., Brooklyn, N. Y.

1. The demonstration of the spirocheta pallida in the suspected lesion.

2. The Wasserman reaction in the blood.

3. The cutaneous or Luetin reaction of Noguchi.

4. The findings in the spinal fluid.

Clinical experience must supplement laboratory diagnosis, for sometimes laboratory reports are misleading.

For the demonstration of the spirocheta the "Dark Field" is the best method as the living spirocheta may be seen. The India ink and Giemso stains are also extensively used for the demonstration of spirocheta in smears, while the Levaditi stain is used to demonstrate the spirocheta in tissues.

The Wasserman reaction is depended upon for the diagnosis of Syphilis today. The old method is the best, as short cuts are unreliable. A positive reaction appears 6 to 8 weeks after infection. 100 per cent of secondary syphitics untreated give a positive reaction. In some cases, in spite of good treatment, it is impossible to change the reaction, if, however, it is reduced but is not negative it shows the need of more treatment. In suspected cases where the Wasserman is negative a small dose of Salvarsan or Mercury will often cause the reaction to be positive in 24 to 48 hours. This is called a provocative Wasserman.

The Luetin reaction was devised by Noguchi in 1911. A mixed culture of killed spirochetæ are injected beneath the skin. A positive reaction as a papule or pustule appears in 3 to 5 days. Nichols and Craig found that the positive reaction appeared more consistently in latent cases.

The findings in the spinal fluid are useful in diagnosing cerebro-spinal syphilis. There is very little danger in lumbar puncture if properly done. In examining the spinal fluid we estimate the pressure, make a cell count, estimate the globulin and do a Wasserman. Up to 5 cells per cm. is normal, 5 to 10 is doubtful, and over 10 is pathological. Increased cell count shows irritation along the cord. Globulin is not normally found in spinal fluid, and its presence shows irritation. It is present in 80 to 100 per cent. of syphitic nervous disease.

In syphilitic nervous disease the Wasserman reaction is usually present. In Tabes about 60 to 70 per cent. positive. In paresis 100 per cent. positive.

Observations on 3,590 Obstetric Cases. Geo. G. Barnett, Ishpeming, Mich., Jour. of Mich. State Med. Soc., Sept., 1915.

The cases were observed in 30 years' practice, an average just short of ten per month. The birth-rate of Ishpeming has fallen from 40.2 per 1,000 population to 24.3 since 1897. The cases occurred in a total of 1846 women and resulted in the birth of 3,639 children. The youngest mother (primipara) was 14 years and 8 months; 3 others were 15; 12 at 16; 28 at 17; 50 at 18; 90 at 19; the maximum was reached at the age of 26 with 226 deliveries. 49 were delivered at the age of 42, 26 at 43; 19 at 44; 11 at 45; 3 at 46; 4 at 47; none beyond this age. The oldest primipara was 40. According to number of labors, there were 670 cases of primiparturition (18.6 per cent); the successive numbers being: 615, 640, 540, 442, 334, 271, 208, 155, 11, 85 (tenth labor), 63, 38, 25, 17, 10 (fifteenth labor), 4, 1, 1, (eighteenth labor).

The presentations were as follows: vertex 3,415 (slightly over 95.5 per cent); breech 99, foot, 46, face 32, transverse 21, arm and shoulder 18, breech and hand 5, both hands 1, shoulder 2—total 3,639.

Weight of infants: 6 weighed 2 pounds; 17 at 3 lbs.; 43 at 4 lbs.; 91 at 5 lbs.; 263 at 6 lbs.; 799 at 7 lbs.; 869 at 8 lbs.; 684 at 9 lbs.; 257 at 10 lbs.; 54 at 11 lbs.; 22 at 12 lbs.; 5 at 13 lbs.; 1 at 15 lbs.; and 1 at 16 lbs. The average weight of 3,112 infants was 7.87 lbs. no account having been taken of fractions.

The birth incidence by months did not vary much—the minimum being 243 for November, the maximum 339 for August.

The births between 1 a. m. and noon numbered 1,984, those between 1 p. m. and midnight 1,595. The minimum was 109 at 3 p. m., the maximum 206 at 1 a. m.

Still births numbered 113 (3.1 per cent.) males 68, females 45.

Placenta praevia occurred in 11 cases with 2 deaths.

There were only 28 illegitimate births (0.8 per cent), male 15, female 13. The general average for the state, 1906 to 1913 was 1.7 per cent illegitimate, and 3.5 per cent. still born.

Version was performed 60 times with 33 living children. There were 60 instances of two deliveries in a year, 26 at full term, 34 premature. Triplets were encountered once. Eclampsia occurred in 9 cases with 1 death, well within Hirst's estimate of an incidence of 1 per 300 of a mortality of 30 per cent. 19 maternal deaths occurred in the whole series, a trifle over 1-2 per cent. Two cases had pneumonia, 1 pneumonia with mania, 1 typhoid, 1 appendicitis, 1 rheumatic fever, 1 pernicious anaemia, a total of 5 from extrinsic causes. The causes of death due to labor or its direct complications were placenta praevia 2, eclampsia 1, shock and haemorrhage 1, sepsis and peritonitis 10. Thus it will be seen that the actual death rate due to pregnancy was less than 1-2 per cent.

Abnormalities noted: Spina bifida 5, imperforate anus 2, acephalous monsters 3, defective digits, etc. 4, supernumerary

digits 2, webbed digits 1. 2 cases of hydatiform mole were seen.

The average length of umbilical cord was 22 inches but lengths of 29, 31, 37 and 38 inches were observed. There was one case of prompt and painless labor in a 3-para named Quick.

The longest interval between marriage and first child was 13 years, the shortest 10 days except one in which the interval was minus 3 days. A grandmother was noted at the age of 32. (The editor had this experience in general practice, years ago, and also had a family in which females were living from great great grand-daughter to great great grandmother, the middle one dying first at about 40.) An example of prolificity was the following: children born April 4, 1900, March 30, 1901, July 16, 1902, July 10, 1903, June 28, 1904, August 23, 1905, and six more up to December 11, 1914.

(Note: This article is not only of the highest value in itself but is one of the best examples of careful recording of private practice that we have encountered. It is obvious that such records, for any kind of medical case, in the class of patients seen in private practice are much more representative than experience derived from hospital experience. Moreover, accuracy is much more likely to be attained in personal records than in those compiled from a variety of attendants. We call special attention to the desirability of statistic articles of this nature and hope our readers will submit such for publication in the **Buffalo Medical Journal**.

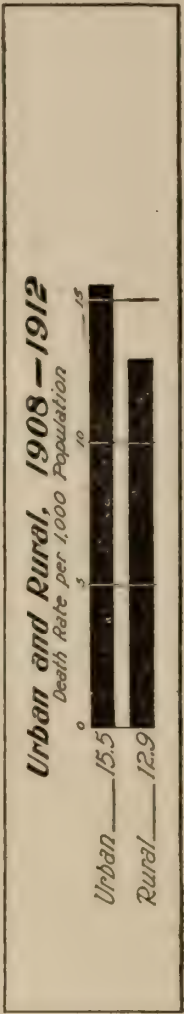
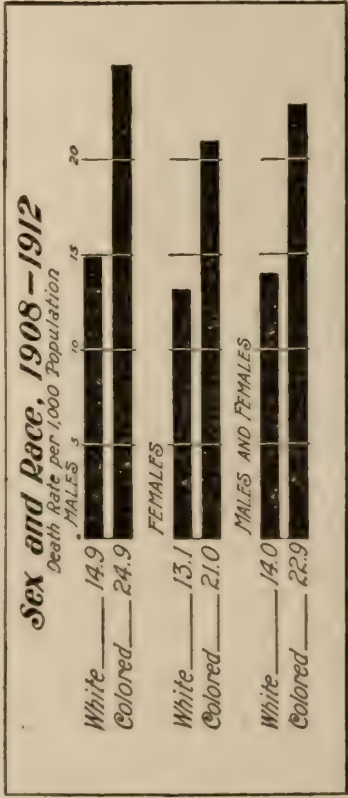
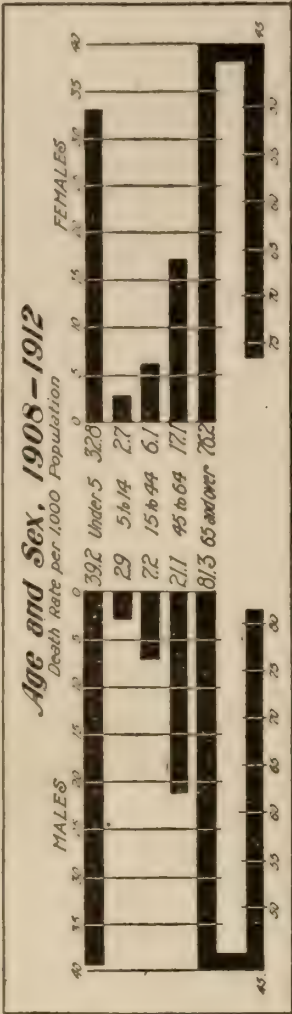
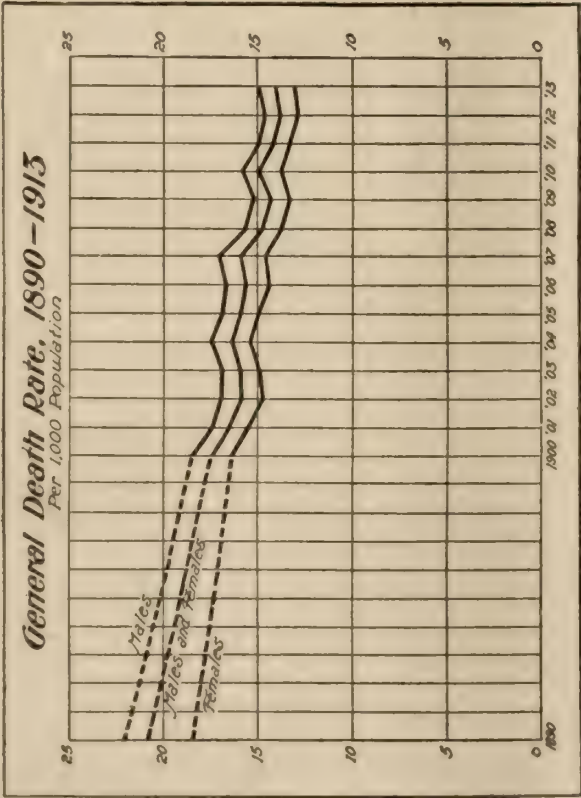
Tetanus From Anti-Variolar Vaccination. John F. Anderson of the Public Health Service has investigated 41 cases. In no instance were either tetanus bacilli or spores found in the stock virus represented by the vaccinations. Among 585,000 army and navy vaccinations, 8 cases of tetanus developed but no relation to the vaccination could be demonstrated. Monkeys and Guinea pigs, which are susceptible to both vaccinia and tetanus were vaccinated with virus purposely contaminated with tetanus bacilli but tetanus failed to develop. Hence, he is sceptic as to the occurrence of tetanus from vaccination.

Fulguration of Benign Papilloma of Bladder. Herman L. Kretschmer of Chicago, *Interstate Med. Jour.*, Sept., reviews 49 articles in the literature. The immediate results are successful and few complications have been reported. Apparent cures have even been reported for carcinoma.

American Public Health. Cuts loaned by Prudential Ins. Co. Data compiled by Frederick L. Hoffman, Statistician, Newark, N. J.

American Public Health — Elements of Mortality

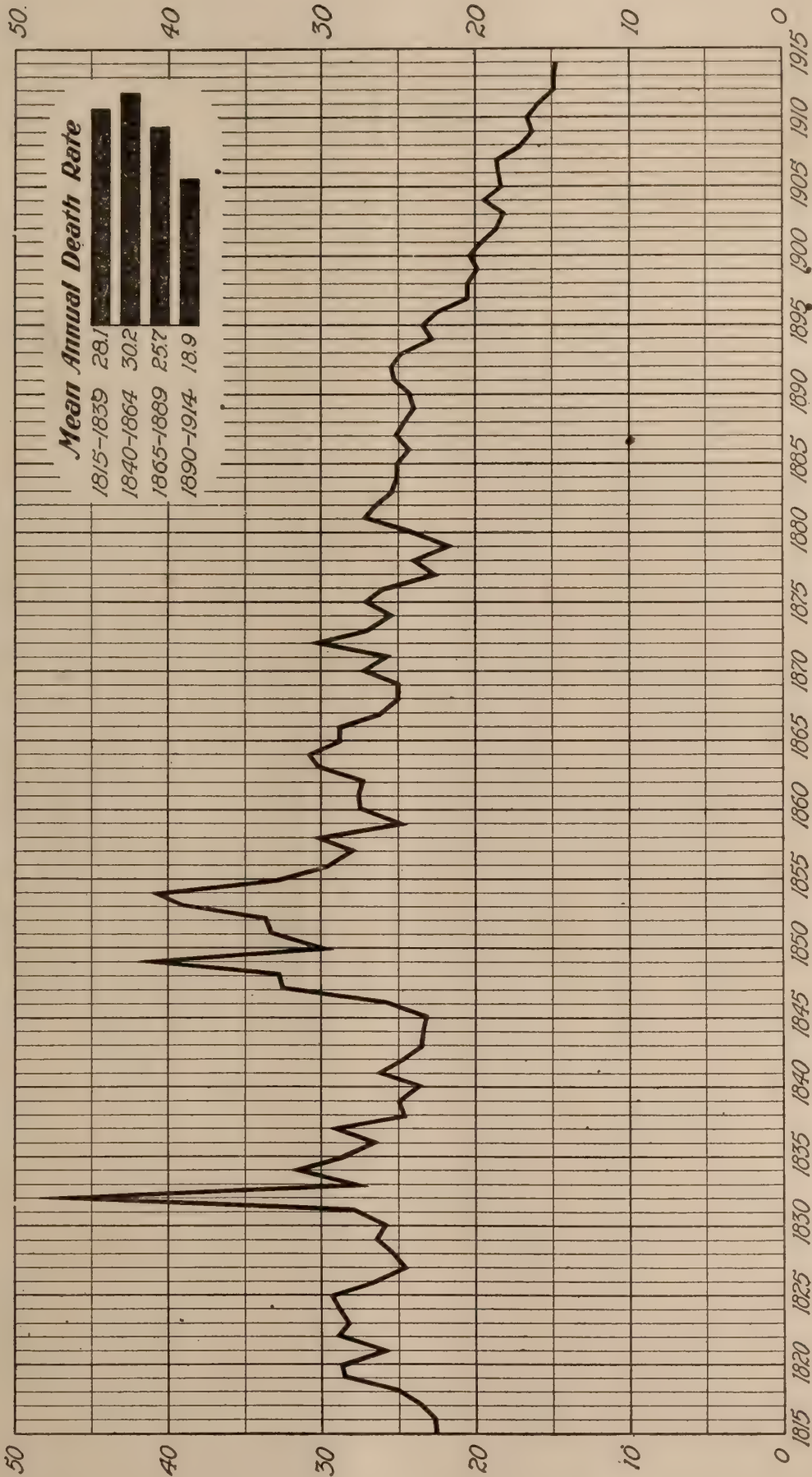
United States Registration Area



The General Death Rate of American Cities, 1815—1914

Boston, New York, Philadelphia, New Orleans

Rate per 1,000 Population



Colloid Cyst of Appendix. A. F. Tyler of Omaha, Interstate Med. Jour., Sept., states that while this condition is rarely reported by surgeons, it was found in 4% of necropsies. Batas of New Orleans has reported a cyst weighing 52.7 ounces and measuring $18\frac{3}{4} \times 17\frac{1}{2} \times 4$ inches. This was a pseudomucinous cyst with the appendix attached to one side. (Apparently this would come under the classification of mesenteric cyst.—Ed.) Tyler's case occurred in a married woman, with symptoms of appendicitis. Blood was found in the stools on a meat-free diet. Roentgen examination showed the cyst to be retro-caecal. On operation, it proved to be a cystic dilatation of the appendix, the contents resembling white of egg. The cyst was 4×1 inch in its thickest part and fusiform.

Bubonic Plague. J. Guiteras, Sanidad & Beneficencia, Havana, November and December, 1914.

Guiteras describes the last outbreak of the plague in Havana. He calls attention to the conveyance of fleas, infected and otherwise in sacking. He maintains that this is a frequent means of conveyance but only for short distances. An infected rat will, when it dies, leave a number of fleas in the sacking where these insects find, for the time being, a favorable resort; and the conveyance of them in sacks can be readily imagined. In the course of days they lose their infectivity and become disseminated besides; so that the charge of infection does not reach the new locality in concentrated form. The possibility of the transmission of the infection must diminish in proportion with the distance of transport in time and space.

To test the infectivity of any given locality, he allows guinea pigs to remain at the site for ten days, keeps them under observation for seven days, when they are killed and examined macroscopically and bacteriologically for evidence of the disease.

Of interest is the fact that no cases of plague were found in tobacco warehouses or those containing charcoal. In one of his experiments Guiteas divided a breeding jar for fleas by a low partition, on one side of which he placed ordinary earth and on the other earth mixed with charcoal dust. The fleas placed therein speedily deserted the side containing the charcoal dust.

While one is in bed the fleas are as likely to bite the upper as the lower part of the body but while at work it is the lower extremities that suffer—hence the frequency of groin and femoral buboes. The sanitary workers are therefore compelled to wear boots which have been rubbed with crude petroleum and this has proved to be an effectual means to avoid infection.

The value of fumigation has been questioned, for one effect seems to be the driving of rats from the infected locality with a consequent spread of the disease.

The free use of water in infected dwellings is of undoubted value—not with the idea of drowning the rats but to thoroughly wet them and their runs and thus seriously affect the breeding of the fleas.

He attributes the low mortality of the last epidemic to the good sanitary organization and the reporting of all cases, light and severe, rather than by the assumption that in recent years the great epidemic diseases, plague, cholera and yellow fever have become attenuated.

Serum Treatment of Plague. J. Guiteras and Alberto Recio, Sanidad and Beneficencia, Havana, November and December, 1914. Haffkine's vaccine and Paris Serum were used in this epidemic. Twenty-seven cases of plague occurred and six died. The results seem to speak favorably for the effect of the Paris serum.

In twelve cases treated in the Las Animas Hospital, all recovered but one. None of them were unusually mild cases. The buboes suppurred in all of them save one. The beneficial influence of the serum appeared to be striking.

Dr. Racio reports as follows:

Treatment. As far as our present knowledge goes, it appears to be demonstrated that the only successful treatment of plague is to be found in specific serum therapy. That however, the real value of antiplague sera appears difficult to determine with precision. In the case that died at the Las Animas Hospital rather small doses were given intravenously. Seven cases were treated at the Covadonga Hospital with two deaths. Of these two, one was admitted in a state of great gravity, about the fourth day of the disease and died three hours after the administration of the serum. The second case did not present characteristic symptoms of the disease on admission and was overlooked until the third day after admission and the fourth day of the disease.

The quality of the serum is of great importance. The serum used in these cases showed itself to be sufficiently active and when applied opportunely, and in sufficient doses, never failed to give evidence of its action.

In all cases they employed large doses at intervals of 6, 12 and 24 hours, according to the necessities of the case.

The method of administration used by Recio is as follows:

Injection into a vein of 80 c.c. **immediately** upon the confirmation of the diagnosis.

Repetition of the same dose six hours later if the fall of

temperature be not initiated. If this has occurred he delays the injection 12 hours.

If the descent continues the next dose of 80 c.c. is given twenty-four hours later.

Subsequent doses of 40 c.c. are given every twenty-four hours until the temperature is brought completely under control.

The treatment is discontinued when the temperature oscillates about normal. About 200 to 600 c.c. of serum are required.

Duprat, in Rio Grande do Sul, in 1902 used larger doses. His first dose, according to the gravity of the case was from 200 to 300 c.c. subcutaneously. He continued with doses of 100 to 150 c.c. every 12 hours. He obtained 38 cures in 45 cases treated.

Choksy uses Lustig's serum, as follows:

Injection of 60, 80 or 100 c.c. as soon as the diagnosis is made. Children under 12 years of age, 10 c.c. An injection intravenously of 20 to 30 c.c. as recommended by Calmette may be employed.

Injections are given in the morning and repeated in 24 hours. If the patient is seen first in the afternoon, the injection is made at once and repeated in the morning.

The amount of serum injected will depend on the rise of temperature the previous evening and the condition of the patient. For the same temperature, the same amount of serum; for a lower temperature, 30 c.c. less serum.

The quantity of serum should be lessened gradually until the temperature falls to normal in the mornings.

A sudden fall of temperature between the second and the seventh days should not indicate a suspension of the treatment.

The injections are given every 12 hours if secondary buboes present themselves, or if the temperature rises rapidly one or two degrees.

If the evening temperature be lower than the morning, the dose is reduced the following day.

From six to eight injections are generally sufficient to complete the treatment.

The total quantity of serum varies from 150 to 300 c.c. according to the gravity of the symptoms and the condition of the serum.

While it must be inferred from the above facts that the last word has not yet been spoken on the subject, still the results are encouraging, and the able investigations of such men as Guiteras, Lebrede, Recio and others will, in the end, prevail, and rob the Black Plague of many of its horrors.

American Public Health Problems. Mortality from Accidents, by age and sex, United States registration area, 1903-1912, (Rate per 100,000 of population) :

Ages	Males Rate	Females Rate
Under 5	147.3	111.4
5-14	60.3	21.4
15-44	131.0	18.4
45 and over	196.6	84.8

American Public Health Problems. Balance of Mortality, 1864-1888, 1889-1913. (Rate per 100,000 of population). New York, Boston, Philadelphia, New Orleans :

	1864-1888		1889-1913	
	Deaths	Rate	Deaths	Rate
Smallpox	23,799	39.5	3,308	2.4
Asiatic Cholera	4,506	7.5	10	0.01
Yellow Fever	8,469	14.0	821	0.6
Scarlet Fever	39,983	66.3	25,560	18.8
Diphtheria and croup	74,274	123.2	79,396	58.3
Typhoid and typhus fevers ..	32,042	53.1	33,573	24.7
Pulmonary tuberculosis	220,048	364.9	303,862	223.3
Pneumonia	113,712	188.5	315,648	232.0
Stomach and intestinal diseases	164,598	298.6	266,991	196.2
Heart diseases	62,565	103.7	223,991	164.6
Nephritis	47,479	78.7	179,258	131.7
Cancer	27,305	46.4	98,085	72.1

Interstate Migration of Tuberculous Persons. Ernest A. Sweet, Reprint No. 269, Pub. Health Reports, mentions Texas, New Mexico, Arizona, Colorado and California as the principal states into which the tuberculous have immigrated, the first four having practically the same climatic advantages, due to high elevation, average of sunshine and low precipitation. Winds and dust, but rarely smoke, are practically the only objectionable features. Contrasted with an average tuberculous death rate of 149.5 : 100,000 population, Albuquerque has a like mortality of about 1400; El Paso of about 800; Colorado Springs of 600; San Antonio of 450; Denver of 350; San Diego of 300; Los Angeles of 300. On the whole, the tuberculous death rate has diminished, as states and cities have developed industrially, the tuberculous population being, so to speak, diluted with a normal population. Of 1419 tuberculous deaths at Albuquerque, 7.8% were of natives. At El Paso, 12.1% of 2,791; At San Antonio, 33.3% of 4,180. Obviously, these statistics are liable to fallacies in both directions: a large proportion of the population of western states were born in the east, while heredity—or rather familial infection—and infection

from immigrants, undoubtedly causes much of the tuberculosis in the native born or permanent residents. Albuquerque has had about 2,000 tuberculous immigrants from other states per year, for ten years; El Paso about 3,000, San Antonio about 3,000.

One of the saddest features of the problem is the unnecessary suffering due to the migration of hopeless cases. Five deaths on trains bound for Albuquerque occurred in 1912, and the average for the ten years, 1904-13, 15.6% occurred within 30 days, 30.9% more within 6 months. For El Paso, the figures are: 2,791, 11.5% and 19%. For San Antonio, of 4,180, 32.7% died within 6 months of arrival.

The burden imposed upon western municipalities by the indigent tuberculous immigrants is considerable. As previously mentioned, place of birth is scarcely a criterion, but it appears that something like 80% of the indigent tuberculous population are supported by these municipalities unjustly.

The report enters into methods of car disinfection and discusses various other phases of the general problem.

Large Infants. A. R. Bisot, Louisville, Paediatrics, Aug. The average weight at birth is 7.75 lbs. The following instances of small infants at term are recorded: Sir Edward Home, 1824, 1 lb., lived to age of 9 years; Moore 1880, 1½ lbs., well at 15 months when the weight was 18 lbs.; Mursick, 1874, 1¾ lbs., living and well; Michigan twins 1874, 1½ and 1¾ lbs., length 8 inches, active and well; Samaritan Hospital, Philadelphia, 1896, 1¾ lbs. In 3,600 births at the Rotunda Hospital, Dublin, only one infant reached the weight of 11 lbs. Among older writers, Cranz reports an infant weighing 23 lbs., Fern 18, Mitthehauser 24, von Siebold 22½. Warren, 1884, reports twins weighing respectively 17½ and 18 lbs., the placenta weighing 4 lbs., and there being "an ordinary pailful" of liquor amnii. Meadows, 1860, and Burgess, 1875, report weights of 18 lbs. Eddowes, 1884, 20⅛ lbs.; Chubb, 1879, 21; Dickinson, 1894, 9, 20 and 16 lbs. as the weights of the successive infants of the same mother; Rice, 1878, 20¼; Johnston, 1881, and Smith, 1878, 20; Baldwin, 1894, 23 lbs., following three miscarriages. Beach, 1879, states that the giant Bates had a child delivered after a slow labor, weighing 23¾ lbs. and 30 inches long. The secundines weighed 10 lbs., and the amniotic fluid measured 9 quarts. Various other cases are cited.

Centenarian. The Ind. Med. Jour. mentions the funeral, July 10, of Bartholomew Finn at Muncie. He was 106 years old.

Climate of the Western Hemisphere. Temperature (Degrees Fahrenheit). Prudential Life Ins. Co

Country	City	Jan. to March	April to June	July to Sept.	Oct. to Dec.	Annual
British Guiana ...	Georgetown	79.3	80.3	80.8	80.7	80.3
Philippine Islands..	Manila	78.2	82.8	80.7	78.8	80.1
Barbados	Bridgetown	78.7	80.4	80.9	79.9	80.0
Dutch Guiana.....	Paramaribo	78.5	79.1	80.3	80.2	79.5
Panama	Colon	79.1	80.0	79.4	78.8	79.4
Brazil	Para	78.5	78.9	79.5	80.3	79.3
British Honduras..	Belize	76.9	81.4	82.4	76.4	79.3
Nicaragua	San Juan del Norte	78.0	80.6	79.6	78.7	79.2
Brazil	Manaos	78.1	78.4	79.2	80.1	79.0
Jamaica	Kingston	76.0	79.7	81.1	78.3	78.8
Grenada	Richmond Hill	78.4	78.5	79.3	79.0	78.8
Trinidad	Port of Spain.....	78.2	79.7	77.3	78.5	78.4
Brazil ...	Bahia	80.7	77.9	75.1	79.0	78.2
Porto Rico.....	San Juan	75.4	78.5	80.5	78.3	78.2
Saint Vincent.....	Kingstown	76.5	78.1	78.7	78.6	78.0
Cuba	Habana	71.8	78.8	81.8	74.9	76.8
Paraguay	Asuncion	84.4	68.9	68.8	79.2	75.3
Hawaii	Honolulu	71.0	75.0	78.1	74.3	74.6
Brazil	Rio de Janeiro.....	76.9	71.6	69.7	74.3	73.1
Venezuela	Caracas	68.9	73.1	72.4	70.5	71.2
U. S.....	New Orleans	61.3	75.2	81.5	63.0	70.3
Bermuda	Hamilton	62.5	69.6	78.9	68.4	69.9
Brazil	Bello Horizonte	72.4	65.8	64.1	70.6	68.2
Costa Rica.....	San Juan	66.8	68.6	67.6	66.7	67.4
Peru	Lima	72.5	66.0	60.8	65.8	66.2
Argentina	Tucuman	74.4	58.5	57.2	72.3	65.6
Chile	Arica	71.8	65.2	59.9	65.3	65.5
U. S.....	Los Angeles	56.2	62.1	69.6	61.3	62.3
Argentina	Buenos Aires	72.6	56.4	53.1	67.0	62.2
Brazil	Curityba	67.9	57.6	56.2	63.6	61.4
Uruguay	Montevideo	70.2	56.8	52.0	64.1	60.8
Mexico	Mexico City	56.8	64.4	61.8	56.6	59.9
Argentina	Bahia Glanca	69.3	53.6	49.6	62.7	58.8
Colombia	Bogota	58.0	58.4	57.1	58.1	57.9
Chile	Santiago	66.4	51.4	48.3	61.4	56.9
U. S.....	San Francisco	51.4	56.0	58.2	55.6	55.3
U. S.....	Washington	39.0	62.8	73.2	45.7	55.2
Ecuador	Quito	54.7	54.7	54.9	54.6	54.7
U. S.....	Denver	37.6	56.3	68.8	40.5	50.8
Peru	Cuzco	51.5	49.8	48.9	52.1	50.6
U. S.....	Chicago	32.6	57.2	71.2	41.4	50.6
U. S.....	Boston	32.0	57.2	68.9	43.4	50.4
Bolivia	La Paz	49.0	45.4	48.8	51.4	48.7
Canada	Vancouver	37.9	52.7	60.2	42.9	48.5
Falkland Islands..	Port Stanley	53.5	43.1	39.1	47.0	45.7
Canada	Toronto	24.5	53.0	66.8	38.2	45.6
Chile	Punta Arenas	52.9	40.8	37.8	48.7	45.1
Canada	Halifax	25.1	48.2	62.5	38.9	43.7
Canada	Montreal	16.6	53.2	65.0	33.6	42.1
Canada	St. John	22.7	47.5	59.8	37.3	41.8
Newfoundland	St. Johns	24.7	41.9	57.0	37.5	40.3
Canada	Edmonton	14.4	48.9	58.1	27.5	37.2
Greenland	Godthaab	14.9	32.7	41.4	23.7	28.2
Alaska	Nome	4.3	32.4	47.2	16.8	25.2
Canada	Dawson	-11.5	45.2	51.5	4.4	22.4

Climate of the Western Hemisphere. Rainfall, inches. Prudential Life Ins. Co.

Country	City	Jan. to March	April to June	July to Sept.	Oct. to Dec.	Annual
Panama	Colon	7.7	27.8	27.8	55.6	128.9
Saint Vincent.....	Kingston	16.1	25.8	35.8	30.3	108.0
Brazil	Para	41.0	31.8	15.6	13.9	102.3
Dutch Guiana.....	Paramaribo	23.5	33.6	19.0	16.3	92.4
British Guiana....	Georgetown	22.5	30.5	19.5	19.4	91.9
Brazil	Manaos	31.2	25.6	6.3	20.6	83.7
British Honduras..	Belize	12.1	23.1	22.7	24.7	82.6
Grenada	Dichmond Hill	10.2	16.7	27.6	23.1	77.6
Philippine Islands.	Manila	2.3	15.1	43.7	15.1	76.2
Costa Rica.....	San Jose	1.6	19.7	30.1	17.7	69.1
Brazil	Bahia	11.4	29.5	13.5	11.7	66.1
Trinidad	Port of Spain	6.4	14.1	26.2	18.4	65.1
Porto Rico.....	San Juan	9.8	14.8	20.3	19.1	64.0
Colombia	Bogota	11.7	19.3	8.8	23.6	63.4
U. S.....	New Orleans	11.0	19.2	20.5	10.3	61.0
Barbados	Bridgetown	7.3	11.0	19.2	20.3	57.8
Brazil	Curityba	17.3	11.5	11.1	17.6	57.5
Newfoundland	St. Johns	16.1	12.9	10.0	18.4	57.4
Canada	Halifax	15.6	12.9	12.2	16.5	57.2
Canada	Vancouver	19.0	7.6	6.4	24.0	57.0
Brazil	Bello Horizonte ...	25.7	2.4	4.5	23.6	56.2
Bermuda	Hamilton	12.7	11.3	13.5	14.4	51.9
Cuba	Babana	6.8	14.5	17.8	12.6	51.7
Brazil	Rie de Janeiro	20.5	8.6	6.3	14.8	50.2
Paraguay	Asuncion	16.9	8.7	6.5	15.2	47.3
Canada	St. John	11.6	10.7	10.2	12.0	44.5
Ecuador	Quito	13.5	13.9	5.3	11.4	44.1
Canada	Montreal	11.4	9.6	10.2	9.7	40.9
U. S.....	Washington	8.5	11.1	10.9	8.7	39.2
Peru	Cuzco	20.4	4.5	2.2	11.6	38.7
Argentina	Tucuman	19.1	6.3	1.3	11.7	38.4
Argentina	Buenos Aires	10.2	8.6	7.6	10.4	36.8
Jamaica	Kingston	2.7	10.0	9.9	12.9	35.5
U. S.....	Chicago	6.8	10.8	10.5	6.7	34.8
U. S.....	Boston	8.7	8.1	8.7	9.0	34.5
Venezuela	Caracas	1.8	8.0	12.8	9.4	32.0
Hawaii	Honolulu	11.0	5.9	4.2	10.0	31.1
Canada	Toronto	6.1	8.7	8.9	7.1	30.8
Uruguay	Montevideo	7.5	7.6	8.0	7.5	30.6
Falkland Islands..	Port Stanley	7.0	7.3	5.7	6.5	36.5
Greenland	Godthaab	5.9	4.8	8.8	6.5	26.0
Nicaragua	San Juan del Norte	4.1	5.5	7.9	8.4	25.9
Chile	Santiago	0.3	10.2	12.6	1.4	24.5
Mexico	Mexico City	0.9	6.5	14.0	2.5	23.9
U. S.....	San Francisco	15.8	0.8	0.2	4.9	21.7
Argentina	Bahia Blanca	6.6	4.4	3.6	6.3	20.9
Canada	Edmonton	1.4	6.3	6.0	2.8	16.5
U. S.....	Los Angeles	11.0	0.3	0.5	3.3	15.1
Canada	Dawson	2.2	2.9	5.5	4.1	14.7
U. S.....	Denver	1.8	4.9	5.6	1.9	14.2
Alaska	Nome	2.1	1.8	7.5	2.6	14.0
Chile	Punta Arenas	1.9	5.5	2.9	1.2	11.5
Bolivia	La Paz	1.1	0.2	0.1	0.7	2.1
Peru	Lima	0.1	0.2	1.3	0.2	1.8
Chile	Arica	0.0	0.0	0.0	0.0	0.0

Analyses of Human Milk. L. Emmett Holt, Med. Rec., Sept. 18, 1915, gives the following as averages of 29 individual specimens and 6 composite specimens for 24 hours:

	Fat.	Sugar.	Protein.	Ash.
Colostrum (5 cases)	2.83	7.59	2.25	0.3077
Transitional (6)	4.37	7.44	1.56	0.2407
Mature (17)	3.26	7.50	1.15	0.2062
Late (7)	2.96	7.45	1.02	0.2080

The average composition of the ash is as follows:

	CaO	MgO	P2O5	Na2O	K2O	Cl
Woman's	23.2	3.7	16.5	8.	28.2	16.6
Cow's	21.8	2.9	28.9	7.2	26.5	13.

Iron in human milk amounts to about 1.7 milligram per liter. Note—The infant is protected against anaemia by a store of iron in the liver and spleen. This protection does not exist to any degree in the adult, hence the danger of prolonged milk diet. Ed.

Inoculation Against Mumps. A. F. Hess, of New York, Arch. of Paed., August, inoculated 20 children using 6 to 8 c.c. of blood taken from the vein of the elbow and injecting intramuscularly. In some cases, the donor was barely convalescent, in others convalescent about 10 days, in others several years after an attack. The inoculated children were deliberately exposed but did not contract the disease, although controls did. Note—Here is a good illustration of human experimentation as charged by antivivisectionists against the medical profession. Mumps being semel-incident, almost inevitable and without a recorded death in an uncomplicated case (Furrell's Tyson's Practice) we consider the experiment justified, especially as there is no known germ from which to develop sterilized vaccines. But, we also feel that human experimentation should receive definite professional recognition, that carefully considered principles of its limitation should be laid down and that such experimentation should be controlled, either officially, or at least by some representative professional organization.

Mumps. L. J. Genella of New Orleans, in a letter to the Med. Council, Aug., alludes to a death reported in a previous issue and states that St. Bartholomew's Hospital reported a few deaths in 1913 and considers fatal cases as fairly common. These are usually regarded as due to meningo-encephalitis but he advances the theory that the toxins incapacitate the thyroid and reacts upon the choroid plexus so that the cerebro-spinal fluid is increased, with resulting rise of endocranial pressure.

Bilateral Congenital Absence of the Radius. E. R. Secord.

(Annals of Surgery, March, 1915, Arch. of Paed., July). The parents of this infant were apparently normal, but a careful examination of the mother showed thickening of the bones of the fingers. Three of the other 4 children were healthy, but 1 had a marked deformity of the arms and died in infancy. This one was covered with a typical papulo-squamous eruption of syphilis. Otherwise nothing was noted except the remarkable condition of the forearms. Both radii were absent, as proven by examination and by X-ray. The ulna on each side was present, the only deformity being the congenital absence of both radii. Secord considers the condition due to a congenital syphilis.

Tubercle Bacilli in Circulating Blood. C. R. Austrian and Louis Hamman, Johns Hopkins Hospital Bulletin, August., give an interesting table of the findings of various authorities. Rosenberger, 1909, found bacilli in the blood in all of 300 cases. Kennerknecht, made a similar claim in 1911, for 68 cases by microscopic methods and for 13 cases by animal inoculation. At the other extreme, various series are mentioned in which negative results were obtained, by one or both methods, not always in accordance. The authors failed to find tubercle bacilli in the blood in 50 cases of pulmonary tuberculosis, although inoculation was practiced in 24 cases. Neither were bacilli found in the blood of experimental animals except in late generalized infections or soon after the injection of overwhelming numbers into a vein.

A Brief For Military Education in School and Colleges. Lucien Howe, Buffalo, Jour. of the Military Service Institution, July-August. Without advocating militarism, Dr. Howe appreciates the value of a trained militia, in the original sense but still more so, the physical and moral stamina derived from military training. 56 per cent. of applicants for enlistment in the U. S. Army in 1912 were rejected for physical causes and of 1256 students at the University of Pennsylvania, only 97 were considered physically perfect. Gymnastic and postural training alone is of great value and should be made interesting, a matter of pride and might even be rewarded by government prizes. 400,000 boys leave the grammar schools every year. Either for civil life or in a military emergency, the results of physical training would soon be conspicuous.

Friedenthal Milk. E. A. Risenfeld of N. Y., Arch. of Paed., Aug., gives Friedenthal's formula: Skimmed milk, 330 c.c., Water, 660 c.c., Lactose 68.9 G., Molkerei salts, 1.89 G., Fat, in cream, 4.5 per cent. Molkerei salts consist of Potassium

chlorid 2, Potassium phosphate 1, Potassium biphosphate 1. In Riesenfeld's experiments, a good grade of milk was used, neither pasteurized nor boiled. He substituted saccharose or dextri-maltose for lactose, with better result. Schloss is quoted also as having poor results with lactose.

Cysts of Mesentery, Edward G. Jones, Atlanta, Surg., Gyn. & Obs., July, briefly reviews the literature and reports 3 cases: Male aged 4, convulsions and abdominal trouble at intervals since 6th month, operated for partial obstruction. Bilocular chylous cyst 16x8 c.m., 4 feet from ileo-caecal valve, resected with intestine to which it was adherent and upon which it pressed. Death from shock 30 hours later. 2. Male, aged 54, left oblique inguinal hernia 15 years, right 6 years, former irreducible for 2 years. Operation for radical cure revealed serous mesenteric cyst, not exactly located but along small intestine, 1 inch from intestinal attachment, 3 1/2 inches in greatest diameter. Enucleated. Recovery. 3. Male, aged 32, recurrent attacks of pain in right upper quadrant of abdomen, loss of weight, failure of digestion. 3 serous cysts in mesentery of colon near hepatic flexure. Enucleated. Recovery.

Dietary Study of Modern Woodmen of World Sanatorium, Woodmen, Col. C. D. Spivak of Denver in Col. Med. September. The diet list for the week, August 4-10, 1913, showed an average of calories from animal food of 2,667; and from vegetable food 1,425, total 4,092, or about 60% more than is needed by the average healthy person at light labor. The per capita, per diem cost was 52 1/2 cents. (Note: This is about proportionate to the cost of an economic but liberal diet for healthy adults, using about 2500 calories a day. At first thought, it would seem that greater economy would be possible in purchasing on a large scale but the disproportionate amount of animal food, meat, eggs, butter, etc., should be considered).

Acute Tubercular Infection of the Ileo-Colic Glands Simulating Appendicitis. Homer Gage, Worcester, Boston M. and S. Jour., August 26, reports a case and alludes to a number of other cases of involvement of mesenteric glands, with or without the simulation of appendicitis. He quotes Hess as having found the bacilli to be the bovine type in 62 per cent. of 71 cases of mesenteric gland tuberculosis but Hess also reports 3 cases of human type, as does Theobald Smith.

Intra-Placental Uterine Rupture. J. M. Stoddard, Anderson, Ind., Jour. of Ind. State Assn., September, quotes Jolly's statistics of 230 cases of rupture of uterus in 782,741 labors. Com-

plete rupture through the placental site is one of the rare varieties of this rare condition. The patient was a primipara, aged 23, well until marriage, but had had 6 abortions at 2 or 3 months and an attack of typhoid since then. Change in the character of pains, and distention of abdomen with fluid led to diagnosis. Operation was performed in extremis but death occurred.

Analysis of Thymus Extract Action—Rudolf Fischl (Monats. f. Kinderhk., 1914, Bd. XII., Nr. 8) has made a careful investigation of the action of thymus extract in dogs. He finds that the action of thymus extract is very variable. Its effect is shown by a coagulation of blood in the vessels of the nervous system. The same inconstancy is seen in other organic extracts. Vasomotor action is important in its effects on the nervous system. There are individual differences in reaction to the extract. No localization of the substance in the spinal cord is observed. The active substance is not in the thymus cells, the cell-free extract being often more active than emulsion of thymus elements. No embolic process is caused by coagulation. In vitro the extract acts as a preventive to coagulation. Specific extracts of other glands such as the suprarenals cause no effect on other non-specific organs. Section of the vagus and the use of atropin has no influence on the action of the extract. Filtration through a Berkefeld filter stops the coagulation effect of the extract. Slow increase of dose causes tolerance to occur, and later much larger amounts can be taken without any bad effects. Anaphylaxis occurs after suspending the use of the extract. The coagulation intensity is variable, and low grades have no bad effect. Previous use of large doses of hirudin destroys the coagulation effect. Pulse is retarded, often irregular; seldom it is not at all influenced. Respiration becomes slow and deeper; occasionally it is irregular; sometimes it is not at all influenced. Terminal convulsions are probably due to anemia. Thrombosis of the vessels of the medulla as a cause of heart and respiratory changes is unlikely. Autopsy shows ecchymoses of the surface of the lungs in rare cases; they are small and result from the terminal convulsions. Changes in the suprarenals are not found.—The American Journal of Obstetrics.

Legal Phase of X-Rays. N. C. Morse of Eldorado, Iowa, Railway Surg. Jour., May, discusses the danger to surgeons from suits based on X-ray pictures which often show a considerable deformity in spite of good functional recovery and especially because such pictures do not make allowance for difficulties inherent to the case.

Infectious Diarrhoea. Carl Ten Broeck and F. C. Norbury, Boston, Boston M. and S. Jour., August 19. 53 cases showed dysentery bacilli. In these, 6 showed also the *B. aerogenes capsulatus*, the presence of the latter being doubtful in 12, and its absence demonstrated in 35. 37 cases showed no dysentery bacilli. In these, the *B. aerogenes capsulatus* was present in 7, absent in 19, doubtful in 11. Of 34 cases of indigestion with diarrhoea, the *B. capsulatus aerogenes* was present in 9, absent in 16, doubtful in 9. Of 14 cases of malnutrition, it was present in 4, absent in 5, doubtful in 5. Of 13 normal cases, it was present in 5, absent in 2, doubtful in 6. These statistics apply to infants. They emphasize the difficulty of finding dysentery bacilli and the fewness of their numbers. They were found, however, in 68 per cent. of 79 cases carefully studied. The Welch bacillus they consider not pathogenic, being more common in mild and normal cases. Likewise, they do not consider *B. Proteus vulgaris*, Morgan's Bacillus No. 1, para-typhoid bacilli nor *B. pyocyaneus* as causes of infectious diarrhoea though they may modify the course of an infection started by the dysentery bacillus. II blood cultures and 14 organ cultures in cases of infantile dysentery, were negative with one exception in which the bacilli were found in the blood.

Nephropexy. Marion, Jour. d'Urologie advocates a revival of this operation. He reports 53 operations without deaths. 26 cases were followed. Only one case was made worse. Pain was relieved. Digestive disturbances were cured in 6 to 16 patients. 4 nervous conditions were relieved out of 8. (Note: We confess to a prejudice against this operation. E.g. woman, 3d degree right kidney, operated on contrary to advice. Kidney firm as a rock, 10 years after operation, in a peculiar slanting abnormal position. Almost constant pain. Similar case, kidney fairly firm but urine has shown albumin and casts after operation, normal previously. Case of unexplained nephralgia. Kidneys not movable but anchored under belief that they were. Pain not relieved. Case referred back on the ground that kidneys had worked loose again. They were not loose and never had been. On the other hand, there is no question but that certain cases are permanently relieved by operation. Still, a bandage holds the kidneys in fairly good position and relieves the pain and nervous reflexes. Slight movability may be permanently cured by deposit of fat due to better nutrition. Third and usually second degree cases cannot be cured by medical treatment but, after wearing the bandage for a few months, permanent subjective relief may usually be expected and, at the worst, the bandage has to be resumed occasionally.

Pigmented Odontoma of the Upper Jaw. A. V. Moschcowitz, (*Annals of Surgery*, March, 1915, *Arch. of Paed.*, July). A swelling was first noticed in the right upper jaw of the infant at six weeks of age. This was incised twice and a rudimentary tooth removed. The swelling increased to the size of an English walnut and bled freely at every touch. A section was removed and examined. It proved to be a pigmented odontoma. Because of the age of the infant the use of the X-ray was advised but no benefit obtained. Moschcowitz is now considering extirpation of the tumor with the knife or the thermo-cautery. This is probably a malignant tumor. They are of two sorts—hard or crown odontoma, made up of dentine or cement substance, and soft or pulp growths, including periodontium.

Influence of War on Births. During the quarter year ending July 1, the births in Berlin were 7,523, as compared with 10,030 for 1915. For England and Wales, the births numbered 213,094, 12,973 below last year's number for the same quarter. Deaths in England and Wales were 138,579, 14,445 more than in the same quarter of 1914.

Volume of Blood. L. G. Rowntree, N. Keith, and J. T. Geraghty, of Baltimore, in a paper before the Association of American Physicians, report the function of a non-toxic, non-dialysable red dye, with estimation of its dilution after 3 to 6 minutes when it should have been evenly distributed. By this calculation, they estimate the normal blood volume at 85 c.c. per kilo, or 12 per cent.

Additional Society Meetings.

The American Roentgen Ray Society, Atlantic City, Sept 22 to 25. The meeting opened with papers on the subject of teaching Roentgenology to the undergraduate. The lack of system in placing the subject in the curriculum was shown. In some schools it came under surgery, in others under therapeutics, medicine and practically under every course on the list. The papers were read by Drs. Zapffe, of Chicago, Cole, of New York, and Pancoast, of Philadelphia.

Oral sepsis as a Focus of Infection by Dr. Darling of New York, brought out the well-known relation of oral sepsis to inflammatory conditions in remote parts of the body, joints, etc. It was demonstrated by Dr. Childs of Denver that in a great many fractures about the joints, better functional end results are obtained with surgical interference. Some lantern slides of roentgenography showing a considerable amount of fragment displacement proved his contention.

Prof. Shearer, of Ithaca, read a paper on "The Physical

Aspect of Roentgen Ray Measurement and Dosage" which was of great interest to roentgenologists.

Dr. Coolidge, the inventor of the Coolidge tube, gave in detail the results of his investigations and experiments. He saw tremendous discoveries clear ahead within striking distance in the matter of perfecting sources of Roentgen rays. He made a plea for the standardization of apparatus used by roentgenologists.

Dr. Dunham, of Cincinnati, showed a very interesting collection of slides of lung diseases. He emphasized the fact that an X-Ray plate properly taken and interpreted is the means of preference in diagnosing incipient tuberculosis.

The Roentgenographic Diagnosis of Metastatic Malignancy in the Lung, was the subject of a paper by Drs. Moore and Carman, of Rochester, Minn. Lantern slides from X-Ray plates taken of the lungs of patients suffering from carcinoma and sarcoma in various parts of the body demonstrate the metastatic processes in the lungs. It was brought out that all cases of carcinoma of the heart should have a roentgenograph of the chest taken before operation and as soon as possible following operation thorough roentgen ray therapy should be applied. In this way 83 per cent. of symptomatic cures have been obtained.

Dr. George, of Boston, showed that with proper technique, of exposure, position, etc., and interpretation of plates a greater percentage of gall stones are diagnosed by the roentgen method.

Dr. Gray, president of the society, gave a brief review of the progress of Roentgenology.

Dr. Wm. L. Rodman, president of the A. M. A., said that he for one, appreciates the assistance of the Roentgenologists in the diagnosis of early gastric cancer. The X-Rays are to be preferred to other methods for in a large number of those cases there are no clinical means of making a diagnosis—achyllic faeces, acid, etc., are late manifestations.

Comparison as to the value of radium and roentgen rays was treated in papers read by Drs. Newcomet, of Philadelphia; Holding, of New York, and Boggs, of Pittsburgh. Radium was of value when the amount of tissues to be penetrated was under 2.5 c.m. It was apt to stimulate growth at periphery of tumor. Tumors exceeding 2.5 c.m. should receive supplementary roentgen ray therapy, 300 to 500 X units are required to destroy cancer cells. It is often necessary to give 3,000 X through numerous skin areas, cross-firing to give a deep growth the desired destruction dose. At times results are obtained with X-Rays where radium fails and vice versa.

In exophthalmic goitre 50 per cent. cures thymic and thyroid gland are rayed—new technique.

In the treatment of menorrhagia, Dr. Lange, of Cincinnati, reported 50 cases, 100 per cent. cures; age of patients, 17 to 56; often one or two treatments sufficient.

Wonderful results are obtained with X-Ray therapy in Myomata.

Of special interest were the following papers:

Studies in the Normal and Pathological Anatomy and Physiology of the Digestive Tract of Children, by Dr. L. T. LeWald of New York.

Text books teach stomach of infants tubular and vertical to body. Roentgenography of numerous infants, 3 days to seven years of age, show stomach as in adult, often extending laterally from ribs on one side to ribs on other, especially when gas inflated, the principal cause of which is from swallowing air.

New Roentgen Evidence of the Early Diagnosis of Early Gastric Carcinoma, by Dr. A. W. George, of Boston.

This evidence consisted of a contraction ring about the pylorus when malignant change starts from a pre-existing ulcer.

Syphilis of the Stomach, by Dr. L. T. LeWald, of New York.

Stomach shadow simulates shadow of gastric cancer but lacks "finger print" mark. Wasserman reaction will assist in differentiating.

Roentgenologic Diagnosis of Duodenal Ulcer, by Dr. R. D. Carman, of Rochester, Minn. A very strong presentation of the subject.

The next paper, by Dr. J. T. Case, of Battle Creek, Mich., supplements the above. His slides interesting in showing diverticula of duodenum.

A manufacturers' exhibit showing all the latest models of apparatus and appliances was very interesting and instructive to the roentgenologists.

Reported by Dr. J. M. Garratt, Buffalo.

Additional Obituary.

Marion Elizabeth Blackman, born at Worcester, Mass, Feb. 7, 1878, the daughter of a physician, attended schools in Brooklyn and graduated at the Girls' High School at Brooklyn. Graduated in medicine at the University of Michigan in 1909 and served internship at the New England Hospital for Women and Children at Boston. She practiced for a time in Wyoming County and then held, for several years, a position on the staff of the Rochester State Hospital, until the beginning of an illness about three years before her death. Recently she had been at Castile, N. Y. She died in Buffalo, September 3, 1915.

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ORIGINAL ARTICLES

The right is reserved to decline papers not dealing with practical medical and surgical subjects, and such as might offend or fail to interest readers. Contributors are solely responsible for opinions, methods of expression and revision of proof.

Operative Conservation of the Ovary

Address delivered before Maimonides Medical Club

By DR. SIGMUND GOLDBERG, of Buffalo

Gynealogist to German Hospital, Consult Gynealogist to German Hospital Dispensary.

It may be stated as an axiom that the ovary is the fundament of womankind. On its anatomic and physiologic integrity depends the weal or woe of woman, and the propagation of the human race. The ovary, for its size, in comparison with other organs, is one of the most complex of the human body.

It is invested by peritoneum. Beneath this is the proper fibrous covering of the organ, the **Tunica Albuginea**, analogous to a similar structure in the testes. It encloses a peculiar soft fibrous tissue, **Stroma**, very richly supplied with blood vessels. The most important elements of the ovary from a pathologic standpoint, are the Graffian vesicle.

These vesicles contain the ova. Varying in number from ten to twenty, in size from a pin's head to a pea. These vesicles have thin, transparent walls, and are filled with a clear, colorless, albuminous fluid. During their early development, they are small and deeply seated in the substance of the ovary. As they enlarge, they approach the surface, and when mature, form small projections on the exterior of the ovary beneath the peritoneum.

In **Gray's Anatomy**, we find a statement which I will unqualifiedly contradict, because where he says, "The formation, development and maturation of the Graffian vesicles and ova continue uninterruptedly from infancy to the end of the fruit-

ful period of woman's life," the words **fruitful periods** should be stricken out.

The mind of medical man has ever been concerned with the status of the ovary as a whole. Ancient history is almost barren upon the subject of ovarian diseases. That some of the functions of these organs were known to early anatomists there can be no doubt, for as early as 200 B. C. female animals were castrated, as mentioned by Aristotle, and in the second century A. D. Galen described the ovaries under the name of **Testes Muliebres**. To be sure, they were uninformed as to the effect on them of menstruation, they attributing this process, again according to Aristotle, to a superfluity in the blood. Concerning the possibility of an internal secretion, ancient history is as much of a blank on internal secretions as of any other ductless gland.

In modern times, we realize more and more that the total ablation of the ovaries, whether in health or disease, is a matter of paramount importance, for we now know, that in addition to the well-known function of ovulation, of equal if not greater importance is the ovarian internal secretion.

This internal secretion is a chemic substance now called a **Hormone**, and it is being more and more accepted as a truism that menstruation is brought about by Hormone action, and particularly all the factors connected with it are under Hormone control. A large proportion of the disabilities associated with menstrual function are known to be Hormonically induced. It is asserted that the ovarian Hormone is secreted by a **Corpora Lutea**. It is my belief that the ovarian Hormone exerts a most remarkable influence, not alone from an anatomico-pathological standpoint, but also influence secondary sex characters, especially with regard to its co-relation—a remarkable instance of which has been described by doctors Pearl and Surface of the **Main Agricultural Experiment Station**. A cow which had produced three calves and given an abundant flow of milk, suddenly ceased to produce the secretion from the mammary glands, the udder rapidly shrank to a small size, and the animal began to show the external characteristics of a bull. After a lapse of eight months, the assumption of the male characters, in various regions of the body was complete and perfect. A necropsy showed as the only gross abnormality a simple cystic condition of the ovary. Histologically and cytologically, these organs differed from the normal cow's ovaries in only one essential respect, namely, that they had no **Corpora Lutea**, and I can fully subscribe to the statement in an editorial in the **American Medical Journal** concerning this experiment that no one can read the interesting report of so unusual a manifestation without suggestion of what the findings may mean in relation to human experience.

The discovery of the principle Hormone action by Starling and Bayliss in 1902 may fairly be declared to have been an epoch-making event, and in Starling's most recent statement (**Proceedings of Royal Society of Medicine, 1914**) in which he asserts that Hormones may either cause the increase or decrease of functions or alteration of nutrition or rate of growth. Of course, at the present time, we are still much in the dark concerning all the functions of the ductless glands. Our ignorance is colossal, but we know some facts concerning them, and in certain cases may apply such knowledge clinically. It is therefore self-evident that the removal of the ovary **in totalis** robs the woman of her greatest physical asset. It may be asserted as to Tuffiar and Maute in the **Presse Medicale**, Nov. 23, 1914, that the suppression of the ovarian internal secretion independently of its menstrual function disarranges the entire cycle of the ductless gland system, the effect of which may be seen in metabolical disturbances which may lead to chronic obesity and invalidism. It has, up to the present time, not been demonstrated that the ovarian secretion or ovulation begins only at the time of puberty, and ceases at the menopause, but as studies along these lines continue, it is becoming more and more evident that the internal ovarian Hormone is secreted during the entire life of the female, it being but a question of degree during the various periods of her existence. Otherwise, how are we to explain the numbers of cases of precocious menstruation, as, for instance, the one recorded by Thomas, in his work on **Disease of Women**, of a child, four years nine months of age, having menstruated regularly from the age of twenty-one months, and reports further that he personally has known of a case in which menstruation began at eight months and continued regularly. He also reports instances as being on record in which menstruation began at birth, or within a month afterwards, and one case of undoubted authenticity is recorded in which menstruation, beginning at two years, parturition at full term occurred when mother was only eight.

etc

So far as the mental effect of the removal of the ovaries in their entirety is concerned, thus interfering with the harmonious cycle of Hormone secretions, Frankel comments on the surprising discovery that in thirty-one of his thirty-seven cases of juvenile mental disease or feeble-mindedness, the genital organs showed pronounced infantile conditions. He asserts that there can be no question that both genital and mental abnormalities are the consequences of one trouble, defective functioning on the part of the ovaries. **Dementia Precox**, Imbecility, and Epileptic Insanity generally affect young persons during the stage of development, and there is much to sustain the assumption that lack of the ovarian secretions is

what is wrong, keeping the girl from developing normally in body and mind.

Alfred Gordon assumes that same position in regard to the castration of women, and after enumerating the various psychic manifestations asserts that operative procedures on the ovaries should be undertaken with a due feeling of great responsibility, and the tendency should be to preserve, as much as possible of any amount of normal tissue found in the ovaries.

This, then, seems to be the trend of the modern mind toward the preservation of the ovary in whole or in part, not alone for its function of ovulation, but because of its co-equal important internal secretion. Even at the present time, not all men are agreed concerning this subject of an internal Hormone. No less a light than Charles A. L. Reed, in his **Textbook of Gynecology**, 1914, makes the following statement. Page 738, in his article on the **Menopause**, "**Making a mystery where there is none**," some have assumed that during the menstrual years the ovaries secrete a certain substance which determines the menstrual flux, and ministers to female health. Napier and Christopher Martin have held that this hypothetical substance, being lacking at the menopause, gives rise to some of the symptoms of the climacteric. But it should be remembered shoals of men, women and children live in health without active ovaries, or with none at all, yet have good health, and that the climacteric is not a pathologic process, or the menopause a symptom."

This is the same language used in his edition of 1901, but it is the only recent work on Gynecology to take so radical and unprogressive a stand upon this question. None of the works to which I have had access, with the exception of two, namely, Crossen's **Diseases of Women**, and the fifth volume of Johnson's **Operative Surgery** gives to ovarian conservation a separate article, and illustrations of the method of procedure. This surely indicates a trend in the right direction.

Women of the present day are not sufficiently impressed with the importance of **operative conservation of the ovary**. They have not yet graduated from their time-honored fallacy that the only function of the ovary is procreation.

It has been no uncommon experience during my professional life, for women to consult me for the purpose of having their ovaries removed as a means for the prevention of future pregnancies. And a number of times when about to operate upon other organs they have requested me to remove their ovaries, as they considered them more of an annoyance than a necessity.

In comparison with the above, what a value the human male places on the analogue of the ovary, the testicles. Propose their removal, **in totalis**, for almost any cause, and immediately

there is a riot. This was beautifully exemplified in a patient of mine of about sixty years of age, ailing with consequences of prostatic hypertrophy. That was at a time when this condition was being treated by what was then known as the Whitehead operation, which consisted in the extirpation of the testicles, the underlying theory being that this would produce an atrophy of the prostate gland. This operation I proposed to my patient. This seemed so horrible a procedure to him that his son, a prominent attorney, requested that before going further, Dr. Park should be called in consultation. This was done, and the first thing Dr. Park recommended was the Whitehead operation. I told Dr. Park that as I had already proposed that operation, that he should reiterate the proposal. I shall never forget the scene when Dr. Park made the proposition in that suave manner so characteristic of him. The patient looked steadily into the eyes of Dr. Park, and for several moments stillness pervaded the room. When my patient did speak, he paraphrased these words of Iago in Shakespeare's Othello, "He who steals my purse steals trash. 'Tis something, 'tis nothing. 'Twas mine, 'tis his, and has been slave to thousands. But he that steals from me my testicles robs me of that which enrichens him not but makes me poor indeed."

The history of oophorectomy is of considerable interest. The kings of ancient Lydia are said to have had it performed upon women in order that they might be employed in places of eunuchs—the actual nature of the operation is somewhat doubtful, as in some instances in all probability only the clitoris was removed. Although from those details procurable it may be inferred that at least some genuine oophorectomies were performed.

During the seventeenth century a Hungarian sow-gelder is said to have removed the ovaries from his daughter as a punishment for her frequent lapses from virtue. In the eighteenth century the operation was seriously discussed by John Hunter of England and John Bell of Edinburgh, although, owing to the high mortality of all intra-abdominal operations these men lacked the courage of their convictions, and were unwilling themselves to undertake a hitherto untried procedure. But their teachings bore fruit, and the first prearranged and successful operation upon an ovary was performed in 1809 by Ephraim McDowel of Kentucky, who had been one of Bell's pupils, and soon thereafter it became an established procedure.

In 1823 James Blondell of London suggested the operation in a paper presented to the Royal Society of Medicine of London. In this he suggested that the removal of the healthy ovaries would in all probability cure dysmenorrhea, and the

menorrhagia which accompanies inversion of the uterus where amputation is not practicable.

In 1872 Dr. Robert Battey of Rome, performed the operation for removal of the healthy ovaries which he termed **normal oophorectomy**—note the word “normal”—for the premature production of the menopause. Battey, during the remainder of his life, operated frequently on this indication to abolish thereby a painful and nervous class of symptoms.

There followed, as a result of Battey's teaching, a wave of sacrificial ovarian surgery which now has passed, and a conservative tide having for its object the conservation of one ovary, or at least part of an ovary, is rising. The sudden and stormy onset of the menopause is prevented or otherwise removed, and the woman does not feel, as she calls it, so totally different from other women.

Schroder, according to A. Martin, was the first to attempt to remove only the diseased portion of an ovary, leaving the apparently healthy part. Martin adopted this method of practice in cases of adherent appendages in which the patency of the tube could be demonstrated, and concluded that the removal of the diseased portions of the ovary did not affect recovery from the operation; that women who had suffered such partial removal of the adnexa, were no more liable to an extension of the disease **to the healthy** portion of the **resected organ** than women whose ovaries were normal; and, finally, that in all these cases of excision, menstruation persisted and conception was possible.

The foundation of the principle of ovarian conservation is that the functions of ovulation and Hormone secretion are a necessary influence in the protection of good health, and the underlying object of conservation is the restoration of good health. It is now a well-known and established fact that if a portion of healthy ovarian stroma is left, it continues the functions of the ovarian system, even to the extent of secreting its normal hormones and ova capable of impregnation. This has been demonstrated in a large number of cases in the practice of others and in quite a number of my own, in corroboration of which I will relate the following cases, which seem to me the most interesting in my experience.

Mrs. Anna B. consulted me April 1, 1910. She had been married nine years, was sterile, and her marital life was becoming more and more unpleasant, her husband neglectful, and threatening to leave her. Upon examination I found the right ovary enlarged, the left ovary tender and a tenderness in the appendical region. She entered the German Hospital by my advice, and upon operation the right ovary was removed, one half of the left, and the appendix.

(My method of resecting the ovary is somewhat different

from the method I have seen used by others, and described in text-books aforementioned. I object to elliptical incision, because the ova-sacs gradually approach the surface, as we learned in our review of the anatomy of the ovary, and in making such elliptical incision we are of necessity incising ovary from the surface, toward the center and a number of degenerative cysts, especially in cases of cystic degeneration of the ovary, are sure to be missed. And this is the underlying cause of the reported five per cent of recurrences requiring secondary operation. No case of necessary secondary operation has occurred in my experience, because I cut the ovary horizontally, not elliptically).

And now to return to the case. The patient made an uneventful operative recovery, and I attended her in labor, assisted by Dr. Mansfield G. Levy, on January 25, 1912, during the delivery of a nine pound male child.

In January, 1908, Mrs. K., consulted me, with following anannesis—nearly two years before she had been delivered of a still birth under the following circumstances. Her physician had called upon her, and telling her that she had plenty of time, left her, saying that he would return in a couple of hours. Shortly after his departure, and during his absence the child was born. I am uncertain whether it was directly a still birth, or whether the infant died immediately after birth. From her story I gathered that there was considerable hemorrhage, which was excessive until about the sixth day, when she was curreted by her physician, and all hemorrhage ceased. From that day there had been complete ammenorea, up to the day of her consulting me, notwithstanding constant medication and treatment. She remained under my care for nearly one year without my being able to relieve the ammenorea. One night I received a message that she was in great pain, and urgent for my immediate attention. Dr. Jesse Levy saw her for me during that night, and reported to me next morning that she was in all probability having an attack of appendicitis. I later confirmed this diagnosis, and directed her removal to the German Hospital. I made a median incision, assisted in this operation by Dr. Jesse Levy, instead of the usual right rectus, because here was an opportunity seldom vouchsafed the surgeon, namely, to witness **in vivo** ovaries functionally dead. After the removal of the appendix, the ovaries were found slightly smaller and considerably paler than normal. Bier's hyperemia treatment was then coming into vogue for various and diverse ailments, and it occurred to me that if I could produce an increased supply of blood to the ovaries, I might perform a unique act of surgical therapeutics. Accordingly, I massaged each ovary for several moments until they appeared to me redder in color and fuller to the

tactile sense, softer in consistency. Before leaving the hospital, Mrs. K, had a normal menstruation, menstruating regularly for some months, when they ceased again for nine months, at the end of which time, assisted by Dr. Jesse Levy, I delivered her of a male child. She has had a number of children since.

One more case which I consider interesting and worthy of mention is as follows: Miss W. entered the German Hospital immediately after its opening for occupancy. Dr. Hartwig performed on her an appendectomy. She made an uneventful recovery. About three months later she consulted me for pain in both ovarian regions. Upon examination I found both ovarian regions full and tender. On my advice she re-entered the German Hospital, and upon operating, I did what was being universally done at that time: removed, as I believed, the ovaries **in totalis**. To my surprise, she continued to menstruate, and when she consulted me about a year later concerning the advisability of marriage, I told her that I thought her marital state would be devoid of motherhood, and that she should inform her prospective husband, for the sake of her future ease of mind, of the facts I had given her. She bluntly told me that she would marry, and that her husband would have to take his chances. Exactly one year after her marriage I delivered her of a beautiful specimen of female babyhood.

This, of course, brings up the question. Did I unintentionally leave behind some part of ovarian tissue? I feel positive that I did not. Some of these cases are explained by the supposition that there must have been a supernumerary ovary. If so, I knew nothing of it. It is believed, though, that even the ovarian ligament may contain some true ovarian stroma, and this may, in some cases, be the explanation.

Judging from my personal experience, and from what I have heard, read and seen in the work of others, I am unalterably convinced that the complete and absolute destruction of all normal ovarian tissue is one of the rarest of pathological phenomena. In almost every case, with rare exceptions, some part of some ovary may be conserved for the benefit of the woman. And from a social standpoint, the removal of ovaries **in totalis** is only too often the cause of domestic infelicity, and it has often been taken advantage of by men as a reason for breaking off engagements, and for the violation of the marriage vows, and the abandonment of wife and children.

In conclusion, I would formulate for your kindly consideration and friendly criticism the following propositions: The ovary, being an organ of such vital importance to the female economy, its operative conservation should ever be uppermost in the mind of the surgeon, because of its three-fold function: the causing of menstruation, the secreting of ova and hor-

mones; second, because there is no condition, mechanical or pathological, except extremely rare, in which the ovary is so thoroughly incapacitated from its normal functioning, but that some part of it may be conserved in the interests of the patient; third, the percentage of recurrences after conservative operation will be greatly reduced, when straight horizontal incision is used instead of the more generally used elliptical; fourth, removal of ovaries does not produce deleterious effects because there is no longer a secretion of the ovarian hormone **per se**, but because its absence destroys that normal hormone cycle of all ductless glands.

508 Eagle Street.

Achalasia of the Cardia. A. F. Hertz (Quar. Jour. Med., Vol. VIII, No. 32), discusses cardiospasm using a new word achalasia, coined for him by Sir Cooper Perry and signifying an absence of relaxation. As a result of his studies, largely with the X-ray, the author believes there is a definite sphincter at the cardia which is in a state of contraction except when reached by food. Occasionally the sphincter fails to relax but the absence of true cardiospasm is shown by the easy passage and withdrawal of a mercury tube. Such a condition is functional, in some cases due to imperfect vagus control.

Diagnosis is best made by means of the X-ray, following a meal of gruel containing barium or bismuth.

Treatment is quite satisfactory by the passage of a mercury tube (20-24 cal.) before meals. In long standing cases with sac formation the swallowing of a silk thread may serve to direct the dilator.

Waterbrash, the author, explains as a certain form of achalasia with accumulation of saliva in the lower esophagus.

Relation of Gas Bacillus to Diarrhoea. P. H. Sylvester and F. H. Hibben, Boston, Arch. of Paed., June. 477 plants were made from 172 cases in infants, 369 plants and 100 cases being positive, 108 plants and 72 cases negative. Infectious diarrhoea: positive 38, negative 9; with 4 positive cases in mixed infection. Fat intolerance: positive 29, negative 3. Included in the general series are 30 breast fed infants under 2 weeks of age, all negative. They hold the gas bacillus to be pathogenic and not a normal inhabitant of the bowel. Fat-free, unpasteurized, lactic-acid milk is considered the best treatment.

Relation of Syphilis to Sydenham's Chorea. Henry Koplik of N. Y., Arch. of Paed., Aug., from negative results of Wassermann test and of diagnostic use of Salvarsan, concludes that such a relation does not exist—unless accidentally—and that salvarsan is not indicated.

A Case For a Diagnosis.*

By J. HENRY DOWD, M. D., Buffalo, N. Y.

The following case I show you for two reasons: first, for a diagnosis, and secondly, to show what has been accomplished after practically every other method had failed during two years constant treatment, in which the patient could not work and suffered intense pain.

G. R. aet. 28, Bradford, Penna., married, gave the following history:

Ailing for two years: commenced by feet becoming sore on the bottoms and constant aching of the heels. Following this, he became very nervous: could not sit in room with his wife sewing or using scissors, thought she was going to stab him in the nose or face. Same sensation occurred if he saw a person using a knife (I used my knife to sharpen a pencil while he was in my office, as soon as he saw the knife, he shook as though having a chill). Said he was perfectly aware no injury would be done him, but when first saw sharp instruments, would unconsciously shake and become terror stricken, these impressions were gradually becoming worse; he was almost afraid to go out of doors. Following this his fingers and feet, (phalanges), became very painful and intensely sore. Gradually this same condition appeared in the cervical vertebra: at consultation he could only bend or turn his head with the greatest difficulty. There was an occasional pain in elbows, hip and knees, but these seemed only transitory. When he would reach for anything, as a book, his pipe and the like, about midway in his effort the extending arm would suddenly become arrested—locked so to speak. This was only for an instant and unaccompanied by pain, but would always occur. Veins of the legs would swell out like ropes, and apparently hard knots appear at certain spots: the patellas were greatly exaggerated, ankle clonus was absent.

He was only able to sleep about four hours out of thirty-six. The joints were all swollen to about twice their natural size, but by massage, he could reduce them to almost normal: the swelling at examination appeared to be involvent of the bone, but there was no lateral movement.

Previous History. Typhoid, five years before, in bed five or six weeks. Never venereal disease, smokes, does not drink, erections good. About two years previous to attack, underwent severe nervous strain for some time, worried constantly.

Family History. Mother and father alive, never had rheu-

*Presented before the 8th Dist. Branch, N. Y. State Medical Society, Olean, N. Y., Sept. 22d, 1915

matism: but mother a marked neurotic, father also of a nervous temperament, but no similar conditions in either.

Urinary Examination. One and three quarters ounces of urine passed in five hours: sp. g. 1028, trace of albumin, no pus, casts, sugar, blood, bacteria or crystals: indican slightly increased, phosphatic index 90% plus, solid: crystals normal in character, but small: hemoglobin, 90%.

Treatment. Of course, this was imperial. For two years he had aspirin, the salicylates, electricity, phylacogens, even X-ray, all a dismal failure: He was gradually becoming worse. The index being 90% plus, nerve-cell irritation was evident, and the case being chronic, he was placed on the Bromide of gold and arsenic.

In three weeks the following had resulted: sleeping about eight hours every night, pain decidedly lessened, fear of sharp instruments almost absent, fingers do not swell as often, and then but little. Urinary examination at this time about the same excepting, sp. g. 1015, albumin less, phosphatic index, 40% minus: He was passing about two ounces every hour and a half. The index showed plainly excessive nerve metabolism had ceased and there remained only about 40% nerve nourishment as a residual: in other words, nerve cell impoverishment was now plainly evident. He was placed on Comp. Phos. Tonic (Dowd) Oz. 2, Fl. Ex. Valerian, Oz. 1, in glycerine qs, ad Oz. 6. One teaspoonful in milk about half an hour after meals. From this time on, there was steady improvement until now, although joints of fingers are swollen, due to bony involvement, there is scarcely any pain: entire freedom from pain in the cervical region, can move head freely. There is also entire absence of locking of elbows: sleep sound every night, good appetite. He has worked every day for the past five months, including Sundays. There is no fear of sharp instruments, says he feels 90% better than he was six months ago. Urinary examination shows sp. g. 1020, no albumin, no pus, no bacteria or sugar: index 10% plus.

No diagnosis of this case will be offered, Acromegaly, gigantisme, Tomsesn's disease and rheumatic arthritis can be eliminated. It may possibly be arthritis deformans, but many of the cardinal symptoms of this disease are absent. The writer offers only a tentative cause, irritation of the pituitary body: there is no infective process evident.

40 North Pearl Street.

Carcinoma of Stomach in Man Aged 26. A hard, nodular growth, of the posterior wall and greater curvature, invading gastro-colic omentum and transverse colon, found to be inoperable, apparently of 2 years' duration. Wm. Young, N. Zealand Med. Jour., Aug.

BUFFALO MEDICAL JOURNAL

A Monthly Review of Medicine and Surgery

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No. 4

The Cat and the Monkey.

You remember the old fable of the monkey who used the cat's paws to rake hot chestnuts out of the fire. Did you ever realize that it had a practical application to medical ethics? The practice does not improve the moral status of the monkey; it is derogatory to the self respect of the cat. In quite an extensive observation, we have rarely seen the cat develop into a monkey.

Specifics.

Do not deride the hope of our fathers in medicine, that a specific might be found for every disease. It is a laudable, practical, humanitarian aim. Neither is it a mere chimera. We have made substantial progress toward its realization. In many instances, there is scientific foundation for regarding a remedy as specific for a given pathologic process. In many others, there is sound reason to hope for further developments. The fact that a given substance may be efficacious in more than one condition does not alter its value, although it indicates a modification of the original theory. Neither does the fact that 100% of efficiency has never been attained and probably never will be attained, interfere with the practical usefulness of a definite remedy of choice in a definite condition. A good deal of the pessimism regarding specifics has been due, not so much to the failure of the remedy as to lack of specificity of the disease names in common use. There never will be

a specific for angina or pneumonia or rheumatism or dyspepsia, but there already are a good many remedies that are, according to a reasonable definition, specific for various pathologic conditions accurately distinguished in nature and correctly diagnosed.

The Main Issue.

The main issue in medicine is medical science and practice, not medical politics, nor glory, nor even personal financial success. No fine point in medical etiquette or ethics—especially what is sometimes called ethics—is so important as the study of disease. Let each man ask himself which of these he is really most interested in. One of the best signs of the times is that, generally speaking, the largest attendance at medical meetings coincides with the best scientific and practical programs—with due regard for the attraction of outside talent—and no longer marks the anticipation of a fight for office or on some point of the by-laws.

Publicity and Ethics.

Within the last few years, the issue has arisen with regard to advertising by physicians, in a very definite form. Does the social standing, professional prominence or prestige of a medical man exempt him from the ordinary rules of medical ethics? This problem has even been presented in a still more definite form, namely, as to the standing of a man making obvious effort to secure publicity, not by direct paid newspaper advertising and the like, but by precisely the same indirect means as are employed by the elect, the elect not considering him a proper person for acquiring prestige. That many prominent men do maintain a publicity bureau, quite comparable except as to details with those of business firms, expositions, etc., is well known. In some cases, the bureau deals with intra-professional publicity, in others a pretty direct appeal to the laity is made though, in the latter case, the circumstances are often, perhaps usually such as to preclude the idea of financial gain. On the contrary, mere glory seems to be the objective. Occasionally it has happened that publicity, either striven for or forced upon the individual has reacted to his detriment, so that he has been forced to take steps to prevent such publicity. Recently, we have received a marked copy of a lay magazine containing an illustrated write-up of a prominent member of the profession, outside our territory. It is just such a write-up as might be expected

to cater to public curiosity regarding the private life of kings, presidents, etc. We do not see how such publicity can help the individual; rather it tends to diminish the esteem in which he has properly been held by the profession and to lessen calls upon him by his colleagues. It can only be desired by the individual as a gratification of personal vanity at the cost of professional reputation and income.

Some months ago, a county medical society in a distant part of the country, protested vigorously against the assumption of one of its most renowned members that his position exempted him from the ordinary rules of ethics in regard to publicity. This was a courageous and sensible action and should lead to general discussion of the subject and the establishment of fairly definite principles, among them the provision that ethics is the same thing for all members of the profession. The great evil of a medical aristocracy, exempt from ethical rules, is the temptation placed in the way of young and inexperienced members of the profession to whom publicity appears not merely as a gratification of vanity but as a means of increasing their earnings.

The Time for Fly Swatting.

It will be remembered that we have not favored literal fly swatting, partly because the possible results are infinitesimal in comparison with methods of exclusion, prevention of fomes, and capture by traps, adhesive paper, etc., partly because of possible danger to the swatter. With the advent of cold weather, however, flies outdoors either die or become dormant. They seek shelter, however, entering through the screens and temporarily open doors and windows, in much greater numbers relatively than during the summer. Yet, the actual number in any house is small and within the possibilities of even manual capture. Extirpation by swatting, under these circumstances becomes practical and its value is not measured by the actual number killed but by their potential progeny next spring.

An Appreciation of Help.

In the October issue, a candid statement was made of what was needed to allow further improvement of this journal. A little over four years ago, a representative of the Journal solicited certain advertising and it has been solicited at reasonable intervals ever since without success. After the editorial on the Needs of the Journal was in type but before it

was published, this advertising was promptly and easily secured, simply because the prospective advertiser happened to mention the matter to two physicians who, without cost even to their consciences, gave a favorable opinion as to the publicity value of the advertisement. There are many cases in which similar aid is possible and every gain, however slight contributes just so much to the strength of the Journal.

The Lymphatic System.

While the editor has felt that he should not publish strictly medical articles dealing with his own experience in this journal, but should submit them to the impartial judgment of other editors, it does not seem that the editorial department should either ignore practical medical problems nor that a general reference to personal experience is out of place.

In the last few years, our attention has been called to the lymphatic system by a case of mesenteric cyst of the chylous type, and by two other cases in which this same form of mesenteric cyst was considered probable; also by two cases of obstruction to the lymphatic circulation and by another seen in a hospital abroad. Cases of chylous accumulation in body cavities have also been reported, including one or two from this vicinity.

In studying these cases and reports, the paucity of literature has been impressed upon us. The lymphatic system is discussed in works on anatomy, physiology and physiologic chemistry, but only in a perfunctory way in works on the practice of medicine, surgery or even pathology. As to therapeutics, we have not only been forced to admit personal incapacity, but have been handicapped by an almost total lack of available general information. Two centuries ago this was not the case. The contemporaneous discovery of the lymphatic circulation, or perhaps one should say the discovery of its significance, was prominent in the mind of the profession and the lymphatic system was considered, not merely as part of scientific knowledge but as a field for the clinician. Unfortunately, the doctors of this time "knew many things that were not so," especially in their frequent and, in the light of modern discoveries, obvious confusion of pus with chyle. Nevertheless, a perusal of early literature is far from valueless.

While lesions and disturbances of the lymphatic system are rare, or, at least, are rarely recognized, beyond the participation of the lymphatics in septic and malignant processes, they do occur, perhaps more frequently than is realized. For example, it is possible that many cases of dropsy, assigned to

the kidneys, blood or blood-vascular system, are essentially due to lesions of the lymphatic channels or the receptaculum. We would, therefore, call attention to the lymphatics as a field of study for practicing physicians and would welcome articles dealing with the subject.

Our Platform.

I. SOCIOLOGIC.

Limitation of laws of a criminal nature, to gross crimes, leaving matters of morality and ethics to individual conscience and influence.

Unification and simplification of the machinery of government. The editor personally believes that we have outgrown the need of states and that there should be but one unit, municipal or rural within the national government—this statement not to be understood as interfering with district for educational, fire, police and judicial purposes.

Limitation of local legislation to purely local matters, involving distinctly different principles of feasibility of operation.

Uniform national license, with regard to professional practice, use of highways and all other special forms of control unless strictly local.

Direct and simple taxation, on the basis of income, with such exceptions as are necessary to regulate dangerous industries or for economic reasons aside from the collection of funds.

Against special legislation in the interests of any body, medical or otherwise, even in the interests of the individual unless consented to by a large majority.

A uniform policy with regard to philanthropies, in the sense that any particular philanthropy shall be supported either by taxation or by private benevolences but that there shall be no conflict, and no duplication of expense of administration.

II. MEDICAL.

Against secret fee splitting. For some arrangement which shall secure fair play to both attendant and consultant, specialist and general practitioner, operative, mechanic, scientific and intellectual skill.

Provision for the care of superannuated, sick and needy physicians and members of their families.

Reduction of the medical profession in numbers, mainly by enforcement of educational requirements, but without unreasonable interference with the right to choice of a life work or deliberate destruction of medical schools organized and maintained in good faith.

An efficient ethical code, applying alike to great and small men.

Standardization of ethical relations to allied professions and businesses, in accordance with law and justice.

The maintenance in all professional organizations of the closest practicable approach to the principles of a pure democracy.

Such regulation of educational, philanthropic and other institutions with which the medical profession is necessarily associated, as to conduce to the maximum efficiency of their proper functions and to prevent their exploitation for publicity or other personal ends.

Have you ever picked up one of those funny, large page papers that no one seems to buy or sell, but which appear mysteriously in the mail, from time to time, and seen this advertisement: "Would you like to receive lots of mail?" Have you ever laughed at the kind of men who would send in their names just for the sake of getting a lot of pamphlets, sample copies and circulars? If so, shed a tear over the desolate, monotonous, sordid life that needs such diversion and that can be gratified by the envy of the cracker-box brigade about the big stove in the "general store." Then, if you are a manufacturer or dealer, stop and think whether it pays to reach that kind of a man, with your advertising. If he is the one you are after, use the circular letter.

BOOK REVIEWS

Books mentioned may be inspected at and ordered through this office. So far as possible, books received in any month will be reviewed in the issue of the second month following.

Histology. Rudolph Krause, Berlin. Translated from an original Mss. and printed only in English. Published by the Rebman Co., N. Y., 274 pages, 36 illustrations (mostly diagrammatic) with numbered references to colored illustrations in the author's "Course in Normal Histology." \$2.50.

This book discusses histology under the general classification of the cell, the tissues and the microscopic anatomy of organs. It is concisely written and adapted to quick reference by headings, black letters and italics. While obviously, the student is dependent upon the other book mentioned, or must refer to some other source of illustration, to actual

slides or must draw upon his memory, the separate publication of this work is economic and, for reference and review, time and labor saving.

American Urological Assn. Transactions of 13th Annual Meeting at Philadelphia, June 18-20, 1914. Publication Committee: Hugh Cabot, Richard Frothingham O'Neil, George Gilbert Smith. Printed at the Riverdale Press, Brookline, Mass 327 pages with plates.

A valuable collection of monographs. In accordance with our custom, being unable to mention all papers in such transactions, we make no attempt at a review.

Potter's Compend of Human Anatomy. 8th edition, revised by D. Gregg Metheny, M. D., L. C. P., & S., L. F. P. S., of Philadelphia. Published by P. Blakiston's Son & Co., Philadelphia. 428 pages, 139 illustrations, tables and 16 plates of arteries and nerves. \$1.00. .

This is one of the familiar brown Quiz Compendes, which we remember as a help in student days. Between the covers, the aspect is not so familiar. The rebuke of a teacher to a student insistent on an up-to-date text book: "Very few new bones have been discovered in the last twenty years" may be correct, but very many improvements have been devised in the methods of impressing them on the memory. We are reminded of the flight of time by the transference of S. O. L. Potter's name from the place of author to the title.

Progressive Medicine, edited by H. A. Hare and L. F. Appleman, Philadelphia, quarterly, \$6.00 per year. Published by Lee & Febiger, Philadelphia and N. Y.

Vol. 18, No. 3, Sept. 1, 1915, deals with the thorax and viscera, including the thyroid (Wm. Ewart), Dermatology and Syphilis (Wm. S. Gottheil), Obstetrics (Edward P. Davis, Diseases of the Nervous System (Wm. G. Spiller). The influence of the European War is noted in several instances. This series shows steady improvement, notably in the brevity and variety of reviews and in the more liberal notice of articles in current medical literature.

The Clinics of John B. Murphy, M. D. Published bi-monthly by the W. B. Saunders Co. of Philadelphia, \$8.00 per year.

Vol. 4, No. 4, Aug. 1915, includes pages 579-795 of the current volume and deals with a great variety of surgical topics.

The Medical Clinics of Chicago. Published bi-monthly by the W. B. Saunders Co., of Philadelphia. \$8.00 per year.

Vol. 1, No. 2, Sept. 1915, includes pages 209-403, represents several authors and various topics in medicine.

Marie Tornowska. Mrs. Anne Vivanti Chartres, Published by the Century Co., N. Y., 303 pages, \$1.50.

This is a biography, one might almost say an edited autobiography, of a Russian countess. Her husband fatally wounds her first lover; with whom she spends a hundred days of necessarily platonic affection while he vainly seeks medical and surgical skill to avert death. Her second lover conspires with her to use her fourth lover as a tool to secure the death of the third, who carries life insurance in her favor. She is sentenced to eight years in prison. The book is a novel with a purpose—to secure her social pardon and leniency in similar cases. From this bald statement of the plot, such a purpose may not appear reasonable but, here we strike the interest of the book to the medical profession. The heroine is obviously hysteric, with a double neuropathic heredity. Epilepsy is implied but scarcely established in her own case, though one need not question the history of epilepsy on the part of the mother. In addition, gynaecologic and metabolic disturbances are somewhat vaguely claimed, and the use of morphine, first administered by a physician himself the victim of this habit, is definitely stated. Considered merely as a story, the book is thrilling though hardly of a desirable type, and it well illustrates the frequent surpassing of verisimilitude by fact. One may not agree with the purpose of the book, which is endorsed by L. M. Bozzi of Genoa, a medical expert at her trial, but the medical and penologic problems are worth considering.

Physical Diagnosis. Dr. Richard C. Cabot, Boston. Published by Wm. Wood & Co., N. Y., 6th edition, 521 pages, 6 plates and 268 figures. \$3.25.

This work bears little resemblance to the older ones that dealt with inspection, palpation, auscultation, percussion, succussion, and that devoted a few pages to everything except the heart and lungs. All parts of the body are considered and the methods of physical exploration are introduced in their natural places just as the examination of the blood, electric and other tests of reflexes are given a place. With the addition of the X-ray to our diagnostic armamentarium, and the broadening of the scope of physical diagnosis, inspection assumes a far greater importance and a higher standard of scientific

accuracy. We venture to disagree with the statement that auscultatory percussion should not proceed in a radial direction from the stethoscope. It is only by following this plan that an area can be quickly and sharply mapped, and while it is true that the sound increases in volume as the stethoscope rests to another unit of conduction is, under normal conditions, so abrupt as to be unmistakable. The substitution of a tuning fork or electric buzzer for the percussing finger, often gives better results. As in his other books, Cabot has introduced an element of originality even in discussing familiar problems. He is a genius in relating and correlating facts, and thus giving a wider significance and practical value to any one known principle or observation.

The best review of this book, however, is what the intelligent reader will say to himself over and over again: "Why, that's so, but I never thought of it in that way before."

Students' Text Book of Hygiene. W. James Wilson, M. D., D. Sc., D. P. H., Belfast. Published by the Rebman Co., N. Y. 270 pages \$2.50.

This book is based on the author's lecture course at Queen's University and, in many details, is limited to British experience and needs. The chapter on Infection and Immunity, though brief, is lucid. In discussing heredity and eugenics, it is stated that the strictly hereditary diseases are forms of nervous disease-haemophilia, Daltonism, albinism, myopia and ichthyosis, and that the trait appears only in males but is transmitted through females who appear normal, the phenomenon being due to the absence of a special determiner from the male sex chromosome.

In speaking of the disposal of refuse, it is stated that cremation is the ideal method but expensive—25 cents a ton—a destructor unit capable of burning 10-15 tons a day being sufficient for a population of 10,000. By implication, superficial burial is favored, on account of the greater number of sarcophagic bacteria in the top layer of soil, one foot being sufficient to prevent a nuisance. However, the English sanitary laws require depths of 3 feet to the top of the coffin for children under 12, and 4 feet for older persons. One acre is stated to be a fair estimate of burial space needed for a community of 1,000 for 14 years. This is a surprisingly liberal estimate. The annual death rate for England is between 14 and 15: 1,000, say 200 burials in 14 years. This allows 267 square feet to a burial.

The chapter on vital statistics includes some mathematic considerations often overlooked and extremely valuable as preventing fallacious conclusions.

The Book of the Fly. G. Hurlstone Hardy. Published by the Rebman Co., N. Y. 124 pages, illustrated. \$0.80.

While presented in rather non-technical style, the matter is really technical, especially in the appendix, about a quarter of the whole volume which deals with zoologic classification, anatomy, etc. The biology, relation to filth and disease, methods of exclusion and extermination are treated quite in detail.

Twelve Lectures on the Treatment of Gonorrhoea in the Male.

Dr. P. Asch of Strassburg, translated and annotated by Dr. Faxton E. Gardner of N. Y. Published by the Rebman Co., N. Y. 104 pages, illustrated, \$1.00.

The author is sceptic as to the communication of gonorrhoea by inanimate objects and thinks that variations in the incubation period, from 12 hours to 2 or 3 weeks due to differences in virulence explain most of the apparent exceptional means of conveyance. Buccal diplococci, degeneration into single cocci and even into Gram-positive forms are recognized. Complications are duly considered and endoscopic methods of diagnosis and treatment are discussed quite in detail.

The Starvation Treatment of Diabetes with a Series of Graduated Diets as used at the Massachusetts General Hospital, by Lewis Webb Hill, M. D. and Rena S. Eckman, Dietitian, with an introduction by Richard C. Cabot, M. D. Price \$1.00. W. M. Leonard, Publisher.

This book furnishes to the general practitioner in compact form the details of the latest and most successful treatment of Diabetes Mellitus. It presents the clinical application of the work done in recent years by Dr. Allen at Harvard and the Rockefeller Institute.

This method of treatment, carried out by Dr. Allen at the Rockefeller Hospital, and the staff at the Massachusetts General Hospital, has proved very successful. As Dr. Cabot states in the introduction: "It seems already clearly proven that Dr. Allen has notably advanced our ability to combat the disease. * * * To all who wish to give their patients the benefit of this treatment I can heartily recommend this book." In a recent address Dr. Allen said, "However specialists may feel there is no doubt that a majority of average practitioners feel bewildered and helpless concerning Diabetes."

To all who have been tried by this baffling disease, this little volume, with its description of treatment, tests and diets will be of greatest service.

OUR CONTEMPORARIES.

The Pacific Medical Journal fills small vacant spaces with quotations from the Bible. The Bible is the most extensively printed, if not the most widely read book in the world. If it were not so generally regarded as a religious work, many persons would read it who do not. We were surprised, some time ago, to hear a surgeon who is not especially pious, say that he sat up till 1 o'clock reading the old testament because of its fascinating interest.

The Cincinnati Medical News declares that many persons recorded as dying from alcoholism, really die from too liberal doses of chloral, given therapeutically.

The Critic and Guide prints the parable of the young man with a pornographic mind who had an idea. Briefly, finding that the cost of indecent pictures and literature was becoming a serious drain on his purse, he organized himself into a society for the prevention of vice and thus obtained a fine collection, free. It occurs to us that such an article should have been delayed a few months unless the editor is willing to forego the rule of *De mortuis nil nisi bonum* and to make definite charges. We would scarcely go so far as to agree that vice hunting is merely one variety of sexual perversion, although it sometimes seems as if the purity specialists get too much interested in sex.

Bulletins et Memoirs de la Societe de Medecine de Paris, June 23, devotes over 20 pages to a dissertation on the Polychesia of the German Race, by Dr. Berillon. Some historic notes of the interest shown by Martin Luther and a German princess in defaecation are given, and the claim is made that the faeces of Germans are double in amount those of the French and much more offensive. It is gravely stated that 500 German cavalymen, in 3 weeks, deposited 30,000 kilos of dejecta in the various rooms of a paper factory in Chenevieres—representing an average of 3 kilos per capita per diem, nearly. It is regrettable that our profession should manifest race prejudice, even in time of war, to such a degree and in such a manner. Much of the article, however, consists of specific charges of unsanitary, filthy and deliberately indecent abuse of residences, stores and factories, and even churches occupied by German troops. In some instances, these practices are charged to officers and indicate phases of sadism. It is almost inconceivable that such practices are representative of the German army and, we venture to suggest that, instead

of considering them as matters of discussion bearing on the physiology and psychology of a race, this society should "carry the war into Africa" by presenting authenticated examples to the medical staff of the German army, with a formal and courteous protest.

The Journal of Laboratory and Clinical Medicine begins with the October, 1915, issue. It is published by the C. V. Mosby Co. of St. Louis at \$3.00 per annum (monthly). The editorial staff is as follows: Editor-in-chief, Victor C. Vaughan, University of Michigan, Ann Arbor; associate editors—Pharmacology, Dennis E. Jackson, M. D., Washington University, St. Louis; Bacteriology, Hans Zinsser, M. D., Columbia University, New York; Immunology and Serology, Frederick P. Gay, M. D., University of California, San Francisco; Physiological Pathology, Paul G. Woolley, M. D., University of Cincinnati, Cincinnati; Physiological Chemistry and Clinical Physiology, J. J. R. MacLeod, M. D., Western Reserve University, Cleveland; Roy G. Pearce, M. D., University of Illinois, Chicago; Clinical Microscopy and Laboratory Technique, Roger S. Morris, M. D., University of Cincinnati, Cincinnati.

AUBURN NOTES

Dr. L. Belle Richens is recovering from an attack of typhoid fever.

Dr. R. W. H. Rollings has opened an office at 36 Fulton Street.

Dr. and Mrs. S. W. Day accompanied by Dr. and Mrs. Geo. C. Sincerbeaux motored to New York City for a weeks stay.

Dr. Thomas F. Laurie is spending a short time in New York City in postgraduate study.

The recent typhoid epidemic, milk-borne infection, is practically at an end.

Dr. Frederick Sefton was the principal speaker at the latest meeting of the Auburn City Medical Society, and related his recent experiences in England and France.

Saccharomyces Simulating Pulmonary Tuberculosis. Percy K. Telford, of Los Angeles, *ibid.* sends culture and refers to 7 cases reported by Lotena M. Breed in the J. A. M. A., 3 years ago. Vaccine and KI are advocated as treatment.

TOPICS OF PUBLIC INTEREST.

The Buffalo Ward. Report by Dr. Feiss. Practically a year has elapsed since the American ambulance at Neuilly-sur-Seine opened its doors to receive wounded soldiers.

It goes without saying that most of the money which was collected to carry on the work of the ambulance came from America, and the city of Buffalo contributed enough to enable the hospital to start a little ward of its own, which has since been known as the "Buffalo Ward."

It is the pleasure of this committee to briefly describe the kind of cases treated, and the nature of the work that has been done in this ward, for the benefit of these friends of the Ambulance who have demonstrated their interest.

The Buffalo Ward has the distinction of being an Officers' ward. There is no difference between the treatment accorded to officers and common soldiers, but for obvious reasons and as is done in all war hospitals, officers are segregated together.

The ward is located in one of the best parts of the Ambulance both as regards sunlight and fresh air. It contains nine beds.

The cases are under the care of very efficient surgeons, while the nurse is one of the best known and kindest women in the Ambulance. She is helped in her work by an "auxiliary" nurse who is also very well trained in her duties.

Following are some of the cases which are now in the ward and which serve to illustrate the character of the work done:

2nd Lieut. D. . . . of the 23rd Infantry was wounded in the ankle last January during an attack north of Soissons. After a hasty dressing he lay in the trench all night and was brought from the trench to a dressing station the next morning under German fire. Then he was taken to the hospital at Soissons, which hospital had to be evacuated very soon after owing to the proximity of the enemy. He was sent to Vierzy where he was operated on and later brought to this Ambulance.

Here, while in the Buffalo Ward he has been obliged to undergo a series of operations to remove fragments of dead bone. Now he is well on the road to recovery, and will soon be able to walk again although his stiff ankle may cause a slight limp.

Lying next to each other in this same ward are two captains, each with a compound fracture of the thigh.

One of these, Capt. Br. . . . belongs to a regiment of Zouaves. He was wounded one night while leading his company through some intricate manoeuvres to gain some German trenches. When he was hit, some of his Zouaves tried to carry him off to a place of greater safety, but the brave captain quickly ordered them away owing to the firing going on all about him. As the blood flowed freely from his wound he tried to

stop it by tying his cravat about his leg, then he became unconscious and lost all notion of time. Later he was told that ten volunteers had come back after him and that after eight of these brave fellows had fallen, the survivors finally found him and brought him away from the field of battle back to a "Poste de Secours," where he was dressed. Finally he was he was operated on and later brought to this Ambulance.

This took place late in the fall and he has lain here in the Buffalo Ward ever since with a thigh fracture which does not completely unite. His general condition is splendid, and just at present it seems from the X-ray pictures that consolidation is going on well, so that it is hoped that before October comes he will be on his feet again.

His neighbor, Capt. Bu...., belongs to the famous 1st Foreign legion. He was wounded last May while advancing with his company to take some German mitrailleuses by a flank attack. He sustained a fractured thigh. His orderly, a Swiss, was at his side at once, and dressed his wound. He suddenly noticed a body of the enemy approaching and proceeded to pick up the captain in order to carry him off on his back. But the load was too heavy for him and at last, at the suggestion of the wounded man himself, he finally succeeded in getting him out of danger by grasping him by the wrists and actually dragging him over the ground. He had to be dragged this way for a distance of four hundred metres.

Afterwards, he was brought by train to Paris, and arrived at the American Ambulance in rather bad condition.

Here, by means of an X-ray examination, the bullet which caused the damage was located, having become imbedded in one of the bone fragments. Later, an operation was done, the fracture carefully cleaned up and the bullet, a most precious souvenir, finally removed. This fracture has done very well, the bone being perfectly united in splendid position.

No patient has ever been so gracious and thankful as this one. He is always smiling, and has never been known to offer a complaint even at times when he was known to suffer greatly.

Lieut. Be.... belongs to a regiment of Chasseurs. He was wounded on April 26th at some place north of Ypres. His battalion had gained some trenches when the Germans sent a cloud of their asphyxiating gas at them, which obliged a hasty retreat. It was then that he was hit. The wound was of the face, and was quite fresh when he entered the Ambulance. It was an awful thing to gaze upon then. The bullet seemed to have entered through the neck and to have come out through the lower jaw of which only a small portion was left. Most of his tongue was shot away and his teeth and lower lip had completely disappeared. At the beginning he

could neither talk nor eat. He had to be fed through the nose and has obtained all his nourishment this way for two months. His treatment has been in the hands of surgeons and dentists, who have succeeded in establishing a new jaw. His lips will have to be remodeled and he will be given a good set of teeth. At present he is talking quite distinctly, and can eat soft solids by mouth. He is a man of great patience and courage and is a great credit to the ward.

Lieut. La. . . . is another patient of great courage belonging to the 28th artillery. A bullet struck him while he was making observations from a parapet. Strange enough, the bullet entered his eye and passed out through his ear, fracturing the bone behind the ear. After having been dressed in a field hospital, he was brought here and kept under observation for a few days. Later he developed fever and had to be operated on in order to have pieces of dead bone removed. This was followed by several secondary hemorrhages which have weakened him a bit, but at the present time he is convalescent except for a paralysis of the facial nerve which is of course disfiguring. Some attempt will possibly be made later to restore the lost function of the nerve.

Finally, there is the case of Lieut. M. . . . of the 353d regiment of reserve, who was wounded during a surprise attack in which part of his regiment was surrounded. The bullet passed through his leg, and although the wound seemed of no great importance at first, the infection spread and his knee joint became involved. He was not treated in this Ambulance at the beginning, and at the time he was seen here he presented a leg so badly infected that amputation was considered. By careful treatment, however, the leg was saved, the patient undergoing several operations. Today he is so much improved that he goes about with crutches, and even expects to discard them soon.

Many other cases have been treated in this ward, but enough has been said to give an idea of the nature of some of the wounds and character of the men who have come under our care here.

All of these cases have shown the greatest patience and courage, and it has been a privilege rather than a task to have the care of them. If our kind friends in Buffalo could see for themselves what some of the results have been, we feel more than sure that they would quickly realize the importance of the work to which they have so graciously given their support.

Vaccinations (antivariolar) must be reported in N. Y. State, on special cards, with blanks for various details, including result of inspection. We understand that the cards may be

obtained from the local health officer. At any rate, they are to be returned to him for forwarding to the state authorities. No one but a regularly licensed physician may now perform vaccination.

Oral Examination has been substituted by the Massachusetts Medical Society for written examination, previously required of its candidates. It is considered that graduation from a recognized college and written examinations for licensure is a sufficient protection against unworthy admissions.

Deaths From Traffic in N. Y. City for September numbered 57. Automobiles killed 43. Of the 57, 35 were children. For the state outside of N. Y. City, 63 were killed, and of these 57 by automobiles.

The Population of Buffalo, not including inmates of charitable and penal institutions, is 461,887, a gain of 38,172 in five years.

The J. N. Adam Memorial Hospital at Perrysburg, opened special wards for children on October 9. \$5,000 was raised by school children in 1912, by the sale of Red Cross Christmas seals. This fund was subsequently doubled. The City of Buffalo also voted \$120,000 for the erection of buildings needed. A special excursion was run for the opening and a memorial tablet was unveiled commemorating the work of the children.

Clinical Lectures on Diseases of the Skin will be given by Dr. Duncan Bulkley at the N. Y. Skin and Cancer Hospital, 2d Avenue and 19th Street, every Wednesday at 4.15.

Hog Cholera is reported at Pavilion, 50 deaths on one farm, and at Leroy and Churchville Dr. Nelson N. Leffler of Batavia is in charge and is inoculating exposed animals.

Fumigation following infectious diseases has been discontinued in Greater N. Y., statistics showing that no greater protection from subsequent infection has followed its use. Soap and water, burning of hopelessly infected bedding, steam renovation of other material, direct application of disinfectants, in bulk or by spraying, are better means of disinfection. Still, we feel, that under certain limitations, mainly as to penetrability and necessity of moisture, which are pretty well demonstrated scientifically, fumigation has a place in sanitation.

Misbranded Medicines. The U. S. Dept. of Agriculture has

successfully concluded 50 suits under the Sherley amendment of the Pure Food and Drug Law. This amendment prohibits false and fraudulent claims as to the curative or therapeutic effects of a preparation. All but one of the medicines were of the ordinary patent medicine type. The exception was an "ethical proprietary," a simple, harmless preparation, of considerable value if properly and not too optimistically used and one as to the composition of which any physician could easily inform himself. Misbranding, in such a case, must have consisted in too highly colored statements of therapeutic value.

In the Construction of **Arrow Rock Dam**, in Idaho, about 20,000 men were employed, the maximum at any one time being 1500. There was no death from infectious disease in four years and less than a dozen deaths from accident. These facts speak for the efficiency of the medical and surgical and sanitary service. Analogously, the dam was completed in 4 instead of 5 years, and at a total expense of 5 instead of 7½ millions, as estimated. As in the case of the Panama Canal, honesty and efficiency are likely to show themselves at the same level in all departments of an undertaking.

Proposed College Merger. The Hahnemann Medical College of San Francisco has offered to convey its property to the University of California, if two chairs of Homoeopathic Materia Medica and Therapeutics are maintained by the latter, as facultative, not obligate courses of study. This seems to be a fair offer and, by the way, why should not every college maintain such chairs? This does not imply a personal bias but we believe that a full hearing of "the other side," always tends toward ultimate truth.

The Housewives' League. Mrs. Arthur S. Hurrell, President of the Buffalo organization calls our attention to the relation of the Health Dept. to domestic economy and sanitation. Even the Educational system has scarcely so close a relation to the home, since the education of children is dependent on their health, not to mention that many homes contain no children of school age. Modern housewives realize that they are engaged in a serious business. The kitchen factory should have the same standards of efficiency, supported by public departments, as any other factory. The raw materials bought for elaboration in the former require the same control as to fairness of price and testing as to quality, as in the case of the latter. Indeed, the requirement of the former is even more insistent since not only material wealth but health depend upon it. The majority of food materials purchased inevitably contain 10-50% of commercial waste, that is to say of inedible or innutri-

tious matter which cannot practically be separated from the raw material till it is prepared in the kitchen or even till it is served. In addition, even the edible portion may, in the case of coarse vegetables, contain less than 5% of actually nutritious substances and this percentage seldom rises above 50, except in the case of artificially prepared foods such as sugar, flour, starch, butter and oils. Thus, quite apart from direct sanitary considerations, the addition of a further element of waste by putrefaction, fermentation, gross contamination with dirt and flies, represents in the aggregate, the purchase of tons of raw material that must be discarded.

The Housewives' League, therefore, calls attention to the need of further legislation and provision for inspectors, to maintain the markets of the city in a state of cleanliness, particularly as to the exclusion of flies, removal of garbage, and provision for the personal cleanliness of those selling their wares.

Automobiles. New York State, with a population of 9,700,000, has 222,024 automobiles this year, a ratio of 1: 43 plus, of the population. This means one to about 8 families, except that many are commercial, although the frequency with which commercial and dealers' licenses are seen in the country, indicates that the subtraction on this account is not as great as might be expected.

SOCIETY MEETINGS

Brief reports and announcements of meetings of societies of Western New York, and those of general scope, are requested from Secretaries. Copy should be on hand the fifteenth of the month. Full transactions will be published at cost of composition.

DOCTOR: Is your Society properly represented here? If not, please bring our standing announcement to the attention of the members.

At the monthly meeting of the **Medical Society** of McKean County, Pennsylvania, in November, by invitation Dr. J. Henry Dowd will read a paper on, "The Care and Treatment of Our Neurotics."

The Gross Medical Club held their stated meeting at Tonawanda, Friday, Oct. 15th, being entertained by Dr. R. H. Wilcox.

A most interesting and instructive paper, "Some phases of Public Health work," was presented by Dr. W. H. Baker, of

Williamsville. Dr. Baker, who is a very forcible speaker, brought out most clearly what is expected of a Health Commissioner in the rural districts, and what can be done by him, providing he has the moral courage to insist, laws and rules he knows he has the authority to enforce, are so enforced.

This paper was most thoroughly discussed by several of the members, all health officers of surrounding rural localities. The consensus of opinion was; Health affairs should be entirely divorced from politics, in this way, much could be gained and favoritism could be entirely banished.

Several important cases were reported:

Dr. Lawrence Smith, East Aurora, a boy of five or six whose mother said "He jerked (convulsive evidently) in his sleep." He passed only three or four ounces of urine in twenty-four hours, which contained casts and albumin. Under appropriate treatment he apparently recovered. In about two or three months, he was suddenly seized with a twitching of one leg and great weakness. Examination of the blood showed typhoid, yet he had no symptoms or temperature: finally paralysis involved the left leg. In consultation later, the case was diagnosed as Tubercular Meningitis. Suffice to say, after several weeks of a stationary condition of symptoms the boy is now recovering quite rapidly.

Dr. Chester C. Cott. The case of a sailor with severe pains in ear, which in a few days was followed by chills. An operation revealed pus in the right mastoid cells. Two or three days later, chills reappeared and the lateral sinus was open, but no pus found here. Chills continued and he died. A post-mortem revealed an extra dural abscess under the petrous portion of the temporal bone.

Dr. B. E. Smith. A man aged 58, urinating twelve times at night and every half hour in the day. Prostate normal, per-rectum, no stricture. His walk was characteristic of marked locomotor ataxia, but petellas reflexes were exaggerated. His conversation and every action pointed to dimensia: he had been ailing for six or eight weeks, being treated with no result. Urinary examination, sp. g. 1022, albumin, pus, but no other pathological findings: Phosphatic Index 175% plus. The condition appeared most deplorable, there was a grave question as to the outcome. Viewing it as a high state of nerve-cell irritation, as shown by the Dowd Phosphatometer, Fl. Ex. Valerian in Uriseptin was ordered three times a day. I did not see him again for fourteen months, and imagine my surprise to be told, all symptoms had disappeared in three days, he had gone back to work, and has been feeling perfectly well since. I report this case simply to show how, when the true cause is shown, how easily and quickly an apparent serious condition can be handled.

Dr. Wurtz, Kenmore. A woman, extreme lassitude, general pains throughout the body, morning temperature 97, P. M. 100, this for ten days, constipated. There was a very foetid odor from the skin, negative typhoid and Wasserman. For three days past, temperature normal, but she cannot get up or practically move on account of the pain in the muscles, this case is not rheumatism.

Dr. J. Henry Dowd. Patient with pimples under arm, mole-like in appearance, bled easily if touched. This was removed by Dr. James E. King, who also removed all the glands in the adjacent region. It proved to be a melanotic sarcoma. Six months afterwards, complained of pain in the neck with swelling, also under the ribs, the side being markedly bulged. The swelling in the neck is a sarcoma and no doubt the one under the ribs is the same. This is evidently a case of general sarcomatosis.

The members were given quite a treat in a brief talk by Mr. Edward Britt, brother of Dr. W. W. Britt, an expert aviator with the Curtiss Company.

The Association of Erie Railroad Surgeons held its 24th annual meeting in Buffalo, Sept. 30 and Oct. 1, with an attendance of about 100. Papers were read and a clinic was given by Dr. Wm. H. Mansperger at the German Deaconess Hospital. The Erie R. R. entertained the members at a banquet at the Iroquois, followed by a theatre party and with a trip to Niagara Falls. The President, Dr. J. D. Zwetch of Gowanda, presided.

The Medical Society of the County of Erie held its regular meeting in Townsend Hall, Niagara Square, Buffalo, Oct. 18. Officers for 1916 were nominated as follows: Pres., Franklin W. Barrows; 1st V. P., Irving W. Potter; 2d V. P., John C. Thompson; Sec., Franklin C. Gram; Treas., A. T. Lytle; Censors, John D. Bonnar, Arthur G. Bennett, A. D. Carpenter, Frank A. Valente; Delegates to State Society, Arthur G. Bennett, Francis E. Fronczak, A. T. Lytle, Julius Richter, Franklin W. Barrows; Chairmen of Committees, Legislation, Harvey R. Gaylord; Public Health, John H. Pryor; Membership, Wm. F. Jacobs; Economics, John V. Woodruff.

The following new members were elected: Anthony J. Hey, Richard M. De Niord, John George Grotz, George G. Cook, Francis M. Welch, O. J. Oberkarcher, Ernest G. Kramer, Henry D. Duryea, John C. Grabau.

Papers were read by Dr. Franklin W. Barrows on the Study of Backward and Delinquent Children and by Dr. Franklin C. Gram on What Shall Be Done with Tuberculous Patients after their Return from Hospitals and Sanatoria.

Buffalo Academy of Medicine. Oct. 6, Surgical Section, Dislocation of the Semilunar Bone, E. L. Bebee, with demonstration of case. Dr. C. E. Congdon reported a case of Dislocation of Trapezoid. Color Photography in Medicine and Art, with description of methods and lantern slides, Dr. C. W. Bethune.

Oct. 13, Medical Section, Review of Scientific Progress in Physiology, Dr. F. H. Pratt; Psychoanalysis, Dr. G. A. Sloan.

Oct. 20, Section of Obstetrics and Gynaecology, Medicine in Japan, Dr. Rudolph D. Teusler, St. Luke's Hospital, Tokyo.

Rochester Medical Association, Oct. 6, Diagnostic Problems, Treatment of Gastric and Duodenal Ulcers, Dr. Thomas Jameson; Early Diagnosis of Gastric Cancer, Dr. John R. Williams.

Rochester Medical Association, Oct. 6, Diagnostic Problems, Dr. George F. Laidlaw of N. Y.

Rochester Pathological Society, Oct. 7, President's Address, Dr. Charles L. Hinchner.

The Medical Association of Central N. Y. held its 47th annual meeting in the Home of the Rochester Medical Association, 33 Chestnut Street, October 21, under the presidency of Dr. C. O. Boswell of Rochester. The program was as follows, Dr. Elsner being prevented by sickness from attending or preparing his paper, Dr. Colton being absent but his paper being read by the Secretary:

President's Address, Charles O. Boswell, Rochester; Therapeutic Uses. Human Blood Serum (by invitation) Joseph Roby, Rochester; Place of Bone Graft in Surgery (with lantern slides) Howard L. Prince, Rochester; Ductless Glands and a Typical Growth (by invitation) Seelye W. Little, Rochester; Business meeting; Luncheon, 1 p. m.

Symposium on Cardio-Vascular Disease: (1) Modern Methods of Investigation of Cardio-Vascular Diseases, Drs. Geo. W. Ross and Julian London, Toronto, Ont., (by invitation); (a) The Polygraph (with lantern slides); (b) Blood Cultures; (c) The Wasserman Reaction; (d) A Method of Auscultation of the Pupular Veins, Dr. Ross; (e) The Electro Cardiograph (with lantern slides), X-Rays (with lantern slides) Dr. London.

Roentgen Ray Diagnosis of the Heart and Lungs with special reference to new growths (with lantern slides) M. B. Palmer, Rochester; Cardio-Vascular Changes with the Nephropathies, H. L. Elsner, Syracuse; Treatment of Cardio-Vascular-Renal Disease, Charles G. Stockton, Buffalo; Tuberculosis as We Should View It, A. J. Colton, Buffalo.

The following officers were elected, the Secretary, Dr. J. J.

Buettner of Syracuse holding over: President, A. L. Benedict, Buffalo; 1st V.-P., Ledra Heazlett, Auburn; 2d V.-P., E. J. Wynkoop, Syracuse; Treasurer (re-elected), T. F. Laurie, Auburn. The next meeting will be held in Buffalo in October, 1916.

The Orleans County Medical Society held its annual meeting in Medina October 5. Officers were elected as follows: President, John Dugan, Albion; V.-P., R. E. Brodie, Albion; Sec. and Treas., Geo. Rogan, Medina; Censors, Drs. Munson, Padel-ford and Ogden; Delegate to State Society, John Dugan. Dr. Frank Brundage of Buffalo presented a paper on Rickets in Breast Fed Infants, and Dr. Clayton M. Browne of Buffalo on Preventable Deafness.

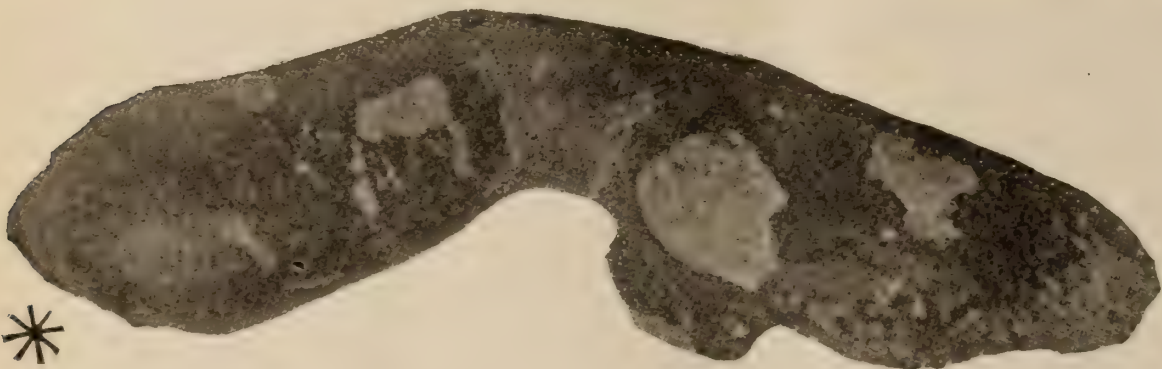
ABSTRACTS

Ethylhydrocuprein in Pneumonia. Moore, Jour. of Exper. Med., page 269, 1915, finds that this derivative of hydroquinone kills all four types of pneumococcus (classification of Cole, Diches and Gillespie) in vitro, in 18 hours, in dilutions up to a million. Its influence on other bacteria is so much less that it is possible that this fact may be applied as a differential test. As a prophylactic (in mice) protection may be afforded against 1,000 times the minimal lethal dose. 56 of 85 mice infected with 100 minimal lethal doses or less, recovered. All controls died. Unfortunately, 13 mice died apparently as the result of poisoning. (Note: The average blood mass of an adult is about 5 liters or 5 million milligrams. While of course, this does not represent the entire volume of tissue involved in an infection nor does the blood necessarily contain the whole of a dose of any drug administered at any given time, we would estimate the human dose at 5 milligrams. This would be expected to be well within the limit of toxic action of any hydroquinone derivative not containing some other ingredient of marked toxic power).

Mastisol. The Prescriber gives the following formulae for this varnish dressing largely used in the German army. The second formula is said to be better: Mastic 40., G. Benzene 60., G. Castor oil 20 drops. Mastic 20, Resin 10, Turpentine (oleo-resin) 7, Benzene 50.

Fire Proofing Clothing. Chas. F. Pabst of Brooklyn, Western Med. Times, July, states that ammonium phosphate, 1 lb to 1 gal. of water is efficient and does not injure garments. The garments are soaked for 5 minutes and allowed to dry.

Giant Calculus of Ureter. P. A. Specklin, Strasburg, article translated for Am. Jour. of Urol., July, reports a case in a man aged 48 of 12 years duration. Operation revealed calculus of pelvis, kidney enlarged and cystic, also calculus of ureter, weighing 51 grams, 11c. m. in long axis, 12 c. m. measured on the curve. The pointed extremity was seen by cystoscope. Rference is made to the following large ureteral calculi: Federoff, 19 c.m., weight 52 grams; Rovsing, 18 c. m., width of bean; Israel, 13 c. m. x about 3, 54.4 grams; ibid. 17x3 c. m.; Pozzi, 34.5 grams; Lloyd, 5½ x inches with circumference of 2½ inches.



Rapid Method of Identifying Typhoid Baccilli. Loewenfeld, Munch. Med. Woch., No. 13, 1915, to 10 C. C. of nutrient broth, add 1 drop of highly potent agglutinating serum (titer 1:8000)

Add several loops from Conradi, blood-bile culture tubes. Incubate for 6 hours. The agglutinated bacilli form a fine flocculent precipitate.

Gay's Anti-Typhoid Vaccine. Report of F. P. Gay of Univ. of Cal. to Am. Soc. of Trop. Med. "A sensitized vaccine sediment" is used therapeutically. Abrupt cures are reported in 5 of 14 cases.

Formalin Treatment of Malignant Tumors. R. Lataste, These de Bordeaux, 1913, quoted in Arch. d'Elect. Med., Aug. 1915, tried this method, favorably described by Laurent of Brussels in 6 cases. While agreeing that formalin does produce coagulation, he finds the action purely local, the tumors extending at points not directly reached by the injections.

Raynaud's Disease. Harry Werner of Thomas, W. Va., Med. Summary, October, reports a case in a man aged 22. The patient was raised on a farm, there was no history of injury, urine negative, Wasserman negative, and the only etiologic factor discoverable was the strain and worry of a "business course"—which seems ludicrously insufficient. Healing was slow, the best results being ascribed to "echafolta" which we are unable to find indexed. The cut is loaned by the courtesy of the Editor.



ness course"—which seems ludicrously insufficient. Healing was slow, the best results being ascribed to "echafolta" which we are unable to find indexed. The cut is loaned by the courtesy of the Editor.

A Dream Problem. A correspondent of Pract. Med., Delhi, Ind., Sept., asks for help in the following case. A man has repeatedly a dream of addressing an audience, the subject of his address being that the whole thing is a dream, including

the audience who, in the dream, deride him for not recognizing that the dream is a real occurrence and not a dream. He wishes help to convince his imaginary audience that it is imaginary. This is a logical extension of Freudism. It is high time that the medical profession should cultivate the lost function of hard-headedness.

Urinary Test for Pregnancy. Chas. H. Walker and Frederick Klein of N. Y., *Am. Med.*, Sept. The general principle of the reaction seems to be a state of suboxidation, most of the oxygen absorbed being taken up by newly formed cells. To 1 gram of ferrous sulphate, is added 2 c.c. of water and after solution, 10-15 c.c. or 3% hydrogen peroxid solution. With the evolution of oxygen and ozone, a reddish brown color develops (ferris hydroxid?). After effervescence has subsided, and equal volume of glycerin of s.g. 1250 is added. 1-2 c.c. of the reagent is added to 4 c.c. of urine and then an equal volume of strong HCL, s.g. 1190. A normal, nonpregnant urine should be used as a control, pregnant urine giving a canary yellow color, others a reddish-brown or dark orange color. (Note: Having entered upon medicine at about the time of the explosion of the kystin fallacy, we are decidedly sceptic as to any such reaction to determine pregnancy. However, the test is worth trying and the editor will gladly co-operate with members of the profession to determine its reliability. To insure impartial results, it is suggested that controls, male and female should accompany the urine of pregnant patients, designated in such a way that the experiment has no knowledge of the condition in advance).

The authors also suggest the following confirmatory test. To 25 c.c. of glacial acetic acid, is added 0.8 gram of benzidin and $\frac{1}{2}$ c.c. of a 5% aqueous solution of selenous acid, and heated till a green solution is obtained. $\frac{1}{2}$ c.c. of this reagent is added to 1-2 c.c. of urine, normal urine giving a heavy precipitate, pregnant urine none. Dark or old urine should be previously filtered through animal charcoal or a mixture of charcoal and kaolin. The same tests are applied in the case of cancer and syphilis, the urine first being precipitated with lead acetate and filtered.

Sulphur in Typhoid. Goubeau, *L'Union Pharmaceutique*, reports 31 cases without a death, following the suggestion of Vorochilsky and Burzagli. An initial calomel purge is given, then washed sublimed sulphur in doses of 5-6 grams, 5-6 times a day. A general mitigation of symptoms and shortening of course is noted. (Note: Acetozone, salacetol with animal charcoal, various other internal antiseptics, colonic lavage, etc., have likewise given good results. While typhoid has been

shown to be a general infection, almost any method, even including diet that produces a fair approach to intestinal asepsis, certainly reduces mortality. It may almost be said that typhoid without modification of the intestinal flora, is typhoid plus mixed infection or, at least, typhoid plus intoxication from other bacterial toxins.

Autolysin Treatment of Cancer. Curran Pope of Louisville, Edw. Huntington Williams of Los Angeles, Hugh G. Nicholson of Charlestown, W. Va., and Andrew Wilson of Wheeling, separate articles in N. Y. Med. Jour., Oct. 9. The Horowitz-Beebe extract is used, usually in the cellular tissue of the arm. Occasionally, intravenous injection is necessary. Considerable pain and caking follows the injection and usually a febrile reaction, the optimum being 100-100.4. Improvement may occur without reaction. Breaking down of superficial growths with increase in discharges occurs; in favorable cases, shrinkage of growth amounting to apparent cure in one or two cases. Cessation of odor is almost regularly noted and, usually gradual improvement so far as pain, cachexia, weight, appetite, blood, obstructive symptoms, etc., are concerned. Altogether, 48 cases are reported with generally favorable results in 32, unfavorable, or rather negative in 16. In the 16, we have included several in which improvement occurred but in which death followed. All the cases were inoperable.

Relation of Splanchnoptosis to Gastric Acidity. Edgar Poe Sandrock, Johns Hopkins Hosp. Bull., July 1915.

	Lockwood 250 cases	Author 25 1st degree	Author 140 2d degree	Author 35 3d degree
Hyperchlorhydria	27.4%	28%	12.8%	25.7%
Euchlorhydria	55.6	40	49.2	48.5
Hypochlorhydria	55.6	20	24.2	17.1
Achylia	9.5	12	13.5	8.5

By first degree, the author means cases in which the greater curvature is at the level of the pelvic brim; by second degree those in which it is below this level; and by third degree, those in which the stomach reaches the bottom of the pelvis. (Note: We candidly admit that if these terms are used in the gynecologic sense and the level of the pelvic brim is taken anteriorly, even the first degree of ptosis is rare. We do not recall a case of the third degree. Standards of hydrochloric acidity are not definitely stated. Statements as to total acidity are also made but as the total acidity varies greatly from fermentation and hence usually though not regularly is inverse to hydrochloric acidity, these are not significant. It should be noted that while the proportion of achylic cases is very high,

so high as to raise the question whether ferment-production was rigorously excluded, the statistics rather tend to prove that gastropsis has nothing directly to do with secretion. There is no progressive tendency, according to degree of ptosis noted, except perhaps toward a normal condition. Generally speaking, the cases are assorted just about as they would be in any miscellaneous series, with the exception of achylia. Ptosis might a priori be expected to interfere with secretion of HCl, in either direction. While, of course, such an interference could not be expected to be absolute and thus to apply to all cases, it would be noted in some consistent way in the majority of all cases and it would naturally show an increase, in one way or the other, as more and more aggravated conditions are considered. The number of cases is sufficient to exclude individual error and the series seems, on the whole to corroborate the general clinical experience that ptosis has no direct and positive bearing on secretion).

Does the Bacillus Abortus Infect Man? Three papers in the American Journal of Diseases of Children (Vol. 10, No. 3), are devoted to this subject. The bacillus abortus, proved to be the specific cause of contagious abortion in cattle by Bang of Copenhagen in 1906, produces in various laboratory animals certain pathological changes microscopically identical with those caused by tubercle bacilli, and certain other changes which involve, spleen, liver and kidneys.

Sedgwick and Larson of Minneapolis present their second contribution to this subject. They tested the blood of many children using a complement fixation test with the bacillus abortus as antigen. They found no positive reactions in babies fed on breast milk alone. When cow's milk was included in the diet a certain number of positive reactions appeared. By further study they were able to show that babies whose milk supply came from herds kept under ideal conditions and not infected with, or exposed to, contagious abortion did not react, while infants fed raw milk from unselected dairies frequently reacted positively.

Sedgwick and Larson realize that their work is not entirely conclusive, but believe that the possibility of infection justifies them in insisting on breast feeding or at least rigid inspection or adequate heating of all milk used in infant feeding.

A brief paper by Ramsey of St. Paul records, without comment, the discovery of seven positive reactions in an orthopedic hospital. The complement fixation tests were made by Larson of Minneapolis.

Nicoll and Pratt report extensive work done in the laboratories of the Department of Health in New York City. They note that isolation of the bacillus abortus from human tissue

has been reported only in a single case. Even here infection was not proved, as the organism occurred on the tonsil and its presence may have been accidental. They recognize the value of various investigations, specially those of Sedgwick and Larson, but believe that ingestion of the bacillus may be responsible for many complement fixations or agglutination reactions. In this connection they call attention to the positive serum reactions obtainable by feeding guinea pigs with typhoid bacilli. In conclusion, results with agglutination and inoculation experiments were obtained after a considerable series of cases were investigated. On the whole they are inclined to wait for successful isolation of the bacillus abortus from human tissue before regarding other tests as more than suggestive.

The Relation of Certain Urinary Findings to Prognosis on Pulmonary Tuberculosis. By J. C. Cummings, M. D., Sacramento, Cal. California State Journal of Medicine, Oct. 1915. In making the so-called urochromogen test the technic of Weiss was used. This requires a small amount of fresh urine diluted with three parts of water, the mixture is thoroughly shaken up and divided into two equal portions in test tubes. To one of these portions three drops of potassium permanganate solution is added, the other tube being used as a control. Many specimens were turbid and of various shades of amber, but the turbidity and original color seemed to have little effect upon the reaction. I recognized as a positive only a distinctly canary yellow which disappeared rather slowly upon standing. A diazo was done upon each specimen.

In 100 successive admissions of patients suffering from pulmonary tuberculosis only 14 could be given a favorable clinical prognosis. In no case considered as "favorable" from a clinical standpoint did the so-called urochromogen reaction appear in the urine. In seven of 14 cases (50%) clinically considered "favorable" a positive diazo reaction was obtained. In 39 of 86 (45%) clinically unfavorable cases the urochromogen test was positive while in 53 (61%) the diazo test was positive. Seventeen of 100 patients died in six months. Of these 17, 11 (65%) showed a positive urochromogen, and 13 (76%) a positive diazo while 10 (59%) showed both. Of 17 patients showing a positive urochromogen test with a negative diazo (a combination considered especially ill-omened by Weiss) none have died to date. Of 39 patients having a negative urochromogen and a positive diazo, five have died. The results are more compactly shown in the accompanying table.

Conclusions.

(1) The urochromogen and diazo reactions appear in the urine of a majority of patients in a late stage of pulmonary tuberculosis.

(2) They do not appear until long after a correctly unfavorable prognosis is possible by a careful clinical examination.

References—1. Weiss. Journ. Am. Med. Ass'n., Nov. 22, 1913, p. 1943. 2. Heflebower. Am. Journ. Med. Sc., 1912, p. 221. 3. Schaffle. Journ. Am. Med. Ass'n., Oct. 10, 1914, p. 1294.

Psychosis of the High Grade Imbecile. H. J. Berkley, Baltimore, Johns Hopkins Hosp. Bull., Sept.

- (1) The dementia praecox group.
 - Catatonia.
 - Hebephrenia.
 - Paranoid forms.
 - (2) The alternating insanities.
 - Periodic and circular forms, with pathological exaltation and depression.
 - Stuporous states, either simple or alternating with motor excitement.
 - (3) The dementia group.
 - Dementias progressive in character, without depression or exaltation of any duration.
 - (4) Cases with especial disturbance of hearing, sight and gustation.
 - Acute and chronic hallucinosis.
 - (5) Cases that are especially characterized by the presence of false ideas.
 - Acute and chronic delusional states.
 - (6) Cases whose principal feature is the occurrence of impulses or impellent acts of a pathological nature.
 - Obsessions and pathological impulses.
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Proportion of Mental Defectives Among Delinquents. Augusta F. Bronner of the Psychopathic Institute of the Juvenile Court of Chicago, Jour. of Am. Inst. of Crim. Law and Criminology, Nov. 1914, considers that the estimate of nearly 90% of mental deficiency in juvenile offenders is too high. She holds that such percentages are due to using only the caught—and therefore less intelligent—delinquents, as a basis of statistics, to too literal reliance on the Binet test, to inability to understand language and to the personal equation of the examiner. She considers that, of her material, more than 90% are intellectually normal. (Note: It is very difficult to eliminate the personal equation and possibly Miss Bronner is prejudiced, like the reviewer, against attributing crime to mental deficiency for which the offender is not responsible. Common sense and accumulated experience must ultimately settle the true balance between the extremes of punishing delinquents

for acts for which they are not responsible and of advocating the reduction of our criminal laws and courts to the basis of regulation of therapeutic measures for some mental disease).

Thermo-Coupler Thermometer for surgical coagulation procedures. Arthur F. Holding, N. Y., Med. Rec., Aug. 14. Haaland, Clowes, Lambert and Widal have shown that cancer and sarcoma cells are killed by a temperature of 50-55 c. for 20 minutes, whereas normal cells withstand temperature of 55-60. The methods of treating malignant tumors by coagulation are: Doyen, electric direct; Pfahler Electro-thermic; Nagelschmidt, Dessication, these three using D'Arsonval high frequency current of 1000-3000 milliamperes, bipolar. Clark Dessication, Oudin high frequency, 1 milliampere or less, monopolar; Percy, heat coagulation, the electric current being used merely to heat the cautery, illuminating current being used. Massey, Ionic galvanization, 500-1000 milliamperes. Beer, Dudin spark, misnamed fulguration, Oudin high frequency 1 milliampere or less, monopolar. Stroebel employs caustics en masse and Gelhorn acetone, to produce coagulation. The author describes at length, the principle and method of application of the thermo-couple, to measure the temperature employed and, by switches, a number of foci of determination can be established.

Death Following Lumbar Puncture. Aides-Majors, Blondin and Senechal, Bull. et Mem. de la Soc. de Med. de Paris, May 14. The case was that of a soldier wounded by a bomb with loss of substance of the cranium, 3.5 c.m. in diameter, external and superior to the right orbital region. There was some loss of cerebral substance and clots but no mention of loss of function. On account of headache, lumbar puncture was practiced 12 days after injury, 15 c.c. of very slightly lemon colored liquid issuing in a jet. Shortly afterward, he died of puomonary oedema although he had not complained of any symptoms and had objected to rest in bed. Necropsy confirmed the observations, showed healing without suppuration but with formation of clots and did not secure the missile, though there was no wound of exit. Levy-Valensi, L'Hop. May 1914, has reported death following puncture, about 30 cases being recorded. The authors, however, do not consider that the puncture could have been the essential cause of death.

"Varicose Zone of Alarm" in Pulmonary Tuberculosis. Lombardi describes in about 90% of cases, venous varicosities near the spinous processes of the 7th cervical and 1st to 3d dorsal vertebrae. The varicosities may be very small. Slight oedema and pain may accompany them. They indicate apical

lesions. The explanation is as follows. It seems to us to require further elucidation. "The spinal-dorsal net has branches that, passing through the transverse apophysis, unite in the neck with the vertebral veins and with the intercostal veins in the chest. The vertebral veins emerge from the transverse apophysis of the sixth cervical vertebra and terminate in the innominate. The intercostal veins of the first two or three spaces of the left side reunite near the vertebral bodies and form the left superior intercostal vein, with the homologous bronchial vein. On the contrary, on the right side, the superior intercostal vein empties into the azygos major."

Reliability of Wassermann Test. O. D. Phelps of Worcester, Boston M. & S. Jour., Sept. 9, sent 113 samples of blood to 4 laboratories with 68 agreements (60.2%); 135 to 3 laboratories with 70 agreements (51.9%); 110 to 2 laboratories with 72 agreements (65.5%). He quotes Craig as stating that the only diseases giving the Wassermann beside syphilis are yaws, leprosy, relapsing fever and malaria in the febrile stage. He considers a repeated positive test as reliable but does not consider a negative test as necessarily excluding the disease. In well marked syphilis (macroscopic appearance, yielding to salvarsan and mercury) alcoholic indulgence may render the Wassermann reaction negative, a positive reaction occurring after the alcohol is discontinued. (Note: In repeatedly publishing abstracts showing marked discrepancies in the Wassermann test, we are not manifesting a spirit of partisanship. None of the recent statistic reports that have come under observation have shown absolute agreement. We have called attention to the fact that a sign or symptom of any kind, to have much value, must show a very small percentage of error, since 50% of occurrence or non-occurrence under ordinary condition means a zero of significance. We have also called attention to the fact that, in most instances, so-called specific reactions show errors in both positive and negative directions and of approximately equal degree. This does not indicate any underlying principle but is merely an empiric observation. A priori, we would expect that a positive demonstration of a germ or of a reaction due to its presence, would be reliable and not subject to error except in confusion of specimens or gross incompetence in applying the test. On the other hand, a negative result—for instance in the search for tubercle bacilli—does not necessarily imply the absence of the disease in question. Of course, two or more germs or reactions due to them, may give similar results—as in the confusion of certain acid-fast bacilli with tubercle bacilli—and in the occurrence of a positive Wassermann in the conditions listed by Craig. Of these yaws is regarded by many as a typical syphilis while leprosy

and relapsing fever and, in many parts of America, malarial fever are so rare as to be of little practical importance. Just how much of the unreliability of the Wassermann noted by Phelps, Wolbarst and others is due to incompetence, how much is due to present lack of recognition of factors in technic required to render the test strictly specific and how much is due to a lack of real specificity in the Wassermann reaction even in a perfected technic, can not be stated at present. It is of practical importance, however, to realize that, under existing conditions, a negative Wassermann is significant only to the extent that a negative search for tubercle bacilli is significant and that a positive reaction has just about the same value as a purely clinical opinion of a practicing physician of the same degree of expertness as the corresponding laboratory worker. This latter statement does not mean that a positive Wassermann is unreliable but rather that both laboratory and clinical tests are good. This fact should be borne in mind for medico-legal purposes also. In particular, we feel that the time is not ripe for legislation requiring applicants for marriage to submit to a Wassermann test. Such legislation, we understand, actually exists in some states.

Blood Urea in Nephritis. Albert J. Underhill of Baltimore, N. Y. Med. Jour., Sept. 25, reports several cases, including acute nephritis with suppression, due to mercuric chlorid. Widal and Javal place the normal amount of urea in the blood at 15-50 centigrams per liter. Marshall and Davis have shown that injection of urea in dogs is followed by increase in the urine, the excess being eliminated within 24-36 hours. The author makes a full report of examinations on a case of bichlorid poisoning (5 grams dissolved in beer). There was anuria for two days, the blood urea on the day after ingestion being 84 c.g. per liter. It gradually rose to 5.32 grams per liter, on the 12th day, when the urine urea was 10.99 grams in 700 c.c. of urine. On the 26th day, the blood urea was 48 c.g., the urine urea 41.49 in 2500 c.c. On the 29th day when the patient was discharged, the blood urea was only 27 c.g. per liter. (Note: The absolute amount of urea in the blood may be estimated at about 5 or 6 times the amount per liter). In another bichlorid case, the blood urea rose to 4.83 grams per liter on the 14th day of observation, as much as 4.2 grams having been obtained from the stools for 12 hours. In another, the maximum was 5.66 per liter on the 15th day after ingestion, when the patient died. In idiopathic cases of nephritis, the amounts of urea in the blood are usually much lower, for instance, 80 c.g. and up to 3 grams but in a fatal case of uraemia, 4.65 grams was noted 3 days before death. (Note: It is interesting to observe that these investigations partially

substantiate the early, literal sense of the term uraemia, though urea itself is only slightly toxic).

Vital Statistics. Frederick L. Hoffmann, LL.D., Statistician of Prudential Life Ins. Co., Pac. Med. Jour. Aug. Approximate Density of the World's Population estimated by continents for the year 1911.

Continent	Area in Square Miles	Population	Population per Sq. Mile
Europe	3,833,567	463,997,000	121.0
Asia	16,997,639	962,233,000	56.6
Africa	11,760,689	135,987,000	11.6
North America	8,631,657	127,993,000	14.8
South America	7,184,021	51,191,000	7.1
Australasia	3,317,762	7,572,000	2.3

Total land area	51,725,335	1,748,975,000	33.8
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Does not include the practically uninhabited polar regions.

Considered by local areas in which cholera was particularly virulent, it appears that there were towns in which the death rate attained to the almost inconceivable proportion of 97.35 per one thousand (Gaya), of which 11.87 was caused by cholera, 35.61 by fevers, and 19.99 by plague. Such conditions are extremely rare in modern civilized communities, although as illustrated in the cholera epidemic of the city of Hamburg, the menace of serious local outbreaks is by no means a remote possibility. The sanitary security of modern countries depends largely upon the highest attainable degree of efficiency in the control of so-called international diseases, and in this respect no country in the world has a better public health service than the United States.

Population Density. The effect of excessive death rates on population increase is so obvious as not to require extended consideration. India in 1911 had a birth rate of 38.6 per one thousand, and a death rate of 32. But for the prevalence of epidemic and largely preventable diseases the natural increase in population would have been much greater than was actually the case.

The lowest death-rate is 10.7: 1000 population (which cannot be regarded as possible except by immigration of healthy adults. In a stationary population, such a mortality would imply an average life of nearly 100 years. In a normal population, with a high birth rate, such a mortality would be possible on a considerably lower longevity average, on account of the dilution of the population from below, were it not for the inevitably high death rate of infants). On the other hand, Spain has a mortality of 23.7, Hungary 25, Russia 30.5, Mexico 31.1, India 33.2 and 20 cities of Egypt 40.9. (Probably a

century ago, 30 was not far from the "normal" death rate of most civilized, fairly well populated countries of temperate climates).

Comparing the present with 30 years ago, the most marked decline of the death rate is in the Netherlands, to 63% of the former. A similar comparison shows 76% for the U. S., 71% for England and Wales, Denmark, Australia and Italy, 72% for Belgium and Germany, 67% for Switzerland.

General Death Rate of the United States Registration Area, 1880-1913:

1880	8,538,000	169,060	19.8
1890	19,659,618	386,939	19.6
1900	30,765,618	539,939	17.6
1905	34,094,605	545,533	16.0
1910	53,843,896	805,412	15.0
1911	59,275,977	839,284	14.2
1912	60,427,133	838,251	13.9
1913	63,299,164	890,823	14.1

Decline in the Death Rate of Cities. During the last thirty years the death rate of large cities of this and other countries has declined as follows, the comparison being limited to the quinquennial periods ending respectively with 1885 and 1910: The death rate of London decreased from 20.9 to 14.0 per one thousand; of Dublin, from 27.5 to 21.6; of Paris, from 24.4 to 17.5; of Amsterdam, from 25.1 to 13.1; of St. Petersburg, from 32.8 to 25.5; of Berlin, from 26.5 to 15.5; of Vienna, from 28.2 to 17.0; of Budapest, from 31.5 to 19.5; of Milan, from 30.3 to 19.3; of Melbourne, Victoria, from 20.1 to 13.1; of Sydney, New South Wales, from 20.8 to 10.5; of New York, from 27.5 to 17.0; of Chicago, from 21.5 to 14.5; and of Philadelphia from 22.3 to 17.7.

It has been very generally held by sociologists that wars, pestilence and famine, have had a conservative action in preventing overcrowding. The natural increase in population may exceed 1% per annum (the increase in the U. S. of about 20% per decade is at least half due to immigration). At 1% increase per annum, money or population will double in a trifle less than 70 years. Thus, in 140 years, the average density of the whole habitable world would be slightly greater than that of Europe. While, of course, many areas, even whole countries, enjoy prosperity with much greater density of population, they do so in the same way as cities, by exchanging manufactures for food, or, as in the case of Belgium, by specializing on certain crops not sufficient in themselves to support the population. It would require about 300 years for the population of the world to increase 10 times, to bring it to a density of about that of Germany at present, which has appar

ently been shown to be just about self-supporting under present agricultural and economic conditions.

Primary Carcinoma of Appendix. J. W. Markoe, Bull. of Lying-in Hospital of City of N. Y., Sept. MacCarty and McGrath found 1 in every 225 appendixes operated on, and 1 in every 53 partially or wholly obliterated, to be cancerous. In a subsequent series of 3039 specimens, 18 (0.6%) were cancerous, the lesion occurring at or near the tip of all. The author's case occurred in a married woman, aged 34, who had had one miscarriage and 3 children. The pathologic diagnosis was chronic appendicitis with spheroid cell carcinoma displacing the mucosa of the obliterated portion. There was no distinct tumor. There was also found a serous cyst of the broad ligament, of the size of an orange.

Field Diarrhoea. Ad. Schmidt, Munch. Med. Woch. No. 36, 1914. Multivalent serum is advised, as few cases are due to pure infection with either Kruse-Shiga, Flexner or Y-Strong types of dysentery bacilli, intermediate types and mixed strains being far more common. 3 doses of 10 c.c., in 2 or 3 days, usually prove curative. Kaolin, 300 c.c. of decoction of simaruba, made in 20% strength and diluted to 10% are of value but the latter tastes badly and may irritate. Emetin he does not consider of value in bacillary cases.

Lymphocytosis Increases the Immunity to Cancer, is the conclusion of John B. Murphy and John J. Morton of the Rockefeller Institute, presented to the Washington Academy of Science. They suggest that injection with extract of lymphoid tissues might increase the immunity. Here is, at least, a scientific possibility for the control of cancer, irrespective of its parasitic or endogenic nature. Ordinary clinical examinations can easily determine whether cancer occurs in persons having relative lymphocytosis.

Primary Aspergillosis. G. W. Holden, Med. Rec., page 587, Oct. 2, reports a case, the mould identified as *A. fumigatus* or *nidulans*. Patient female, aged 47, apparently tuberculous but no tubercle bacilli found. Dieulafoy first called attention to the possibility of pulmonary aspergillosis in 1890, before which date, it had been found only in the ears, nose and mouth. Henry Sewall, in discussion warns against the possibility of accidental contamination of specimen, as often occurs in urine.

Mould Infection Simulating Pulmonary Tuberculosis. August O. Truelove of Indianapolis, Ind. Med. Jour., July. Patient male, 47, worked in grist mill 12-25, butter-tub factory,

25-35, since then has been on dairy farms or driving milk and bread wagons, all occupations predisposing to dust. Sputum copious, tenacious, containing staphylacocci, streptococci and spores indentified as of *aspergillus fumigatus*. Sticker has collected 20 cases of mould infection of lung.

Gas Bacillus Infection. G. M. Barrett, San Francisco, Cal. State Jour. of Med., July, reviews the literature and reports personal experience. The *Bacillus Welchii* grows on nearly all media in the absence of oxygen, produces butyric acid and gas consisting of 64.3% H, 27.6% carbon dioxid, 8.1% N. Owing to the excess of H the gas burns with a pale blue flame. In the presence of oxygen, it does not produce gas and its virulence is slight. Cramp found 9 cases in 5802 traumatismis at Bellevue. He collected 187 cases from the literature, of which 21 were post-operative. He gives the following:

Conclusions: 1. *B. Welchii* is probably not found in open wound as a pure infection but always associated with other organisms of more or less pathogenicity. 2. The *B. Welchii* may be a harmful invader of the human organism, but usually only in cases of local or systemic devitalizations, or when acting as a symbiote. 3. The proteolytic effect of *B. Welchii* is much augmented by the presence in the tissues, at the same time, of *B. Coli*, as this latter bacillus ferments out the sugar, allowing a much more rapid disintegration of the protein, with a consequent increase in the absorption of the resulting putrefactive products, and so a greater toxemia. 4. When present in a wound, this organism causes a peculiar sickening odor, a reddish watery discharge, and under certain conditions, gas and crepitation; and the requisites for a cure are to reduce the edema which makes for increased virulence by reduction of oxygen and production of acid, both tending to an increased autolysis of tissue; by free deep incisions and the use of a solution of sol. chlor. 1% and sod. citr. 2%, or peroxide of hydrogen; and restore the blood and oxygen supply by removal of sutures, if any, exposed to the air, application of oxygen gas, or peroxide of hydrogen, though it is doubtful if these agents are effective except on the surface. The direct injection of oxygen into the tissues has been recommended, but I know of no series of cases proving its worth and reliability. Of course, interference with, or destruction of the blood supply may be so complete it cannot be restored. 5. Amputation, in most cases, does not materially enhance the patient's chances of recovery, where an extremity is involved, but rather militates against it. This is not to be taken to mean that if amputation is indicated from other causes it should be delayed. 6. Plaster casts should not be employed as a first dressing, if at all in those fracture cases with extensive trau-

ma, crushing and known introduction of dirt or other infective material. Anerobic and aerobic cultures from the wound and from the blood should be taken in all such severe traumatic cases. 7. Death is usually not due to the *B. Welchii* alone, but is more often the result of shock or sepsis, or both, though the gas bacillus may sometimes aid by symbiosis.

The Oculo-cardiac Reflex. This phenomenon, which was first described in 1908 by Aschner, and to which considerable attention has recently been paid, consists in a change in the pulse rate, usually a slowing, and sometimes in a change in the pulse rythm, following compression of the ocular bulb. The reflex occurs in normal individuals, its path consisting of the fifth nerve, the medulla, and the vagus or sympathetic nerve. Persons showing the usual type of this reflex, in which the vagus forms part of the arc, are designated as vago-tonics; persons in whom the sympathetic is part of the reflex are react to ocular compression by means of a very slight slowing or an actual increase of the pulse; these individuals are known as sympathicotomics.

Two important clinical studies of the oculo-cardiac reflex have recently appeared. The first of these, by Noel Orlandi, is contributed to *Riforma Medica*, February 27 and March 6 and 13, 1915. He finds that compression of the ocular bulb causes a slowing of the pulse in normal persons to the extent of four to twelve pulsations a minute. The same effect is observed whether the two bulbs are compressed simultaneously or alternately. If compression is repeated three or four times at intervals of a few minutes the reflex disappears. It may show considerable variation in the same individual; on one day light compression of the bulb may cause a reduction of twelve or fourteen in the pulse rate, whereas on the following day similar compression may cause a reduction of only four. In no normal subject has Orlandi ever observed an inversion of the reflex. In two instances, upon the repetition of the test following the production of bradycardia he obtained a transient acceleration of the pulse. Age has an important influence upon the phenomenon. Infants react with a more pronounced bradycardia than do adults; in women the reflex is more marked than in men. On the basis of his observations Orlandi concludes that the oculo-cardiac reflex is a normal phenomenon dependent upon the integrity of the vagus path; apparently, however, the reflex arc is frequently exhausted, for in certain instances the repetition of the stimulus causes the nerve impulse to be propagated along the sympathetic, in which case tachycardia results.

The oculo-cardiac is abolished in chronic aortitis. It is absent in *tabes dorsalis* with a constancy comparable with the

presence of the Argyll-Robertson pupil. The reflex is exaggerated in the vagotonic syndrome and inverted in the sympatheticotonic syndrome. It is a useful diagnostic aid in cases of bradycardia and in certain cases of changed conductivity in the atrioventricular path, by showing the integrity or impairment of the extracardiac innervation. In other words, the oculo-cardiac reflex is an index of the functional efficiency of the vagus. But before attributing any diagnostic value to this reflex one must bear in mind the wide limits of its variability under normal conditions, and the fact that the reflex is easily exhausted by repetition.

E. B. Gunson (*British Journal of Children's Diseases*, April, 1915), has studied the oculo-cardiac reflex with the aid of the polygraph in cases of diphtheria and scarlet fever occurring in children under twelve years of age. He notes that the positive vagal effect or slowing of the pulse is an indication of the normal state of the nervous mechanism of the heart, and may be obtained even in the presence of a myocardial degeneration. The reflex is positive in about 92 per cent. of children convalescent from diphtheria and scarlet fever. The negative reflex, that is, one in which there is no slowing or an actual quickening of the pulse, occurs in all cases of so-called "cardiac paralysis" that terminate fatally; in cases that recover the reflex becomes positive when the heart returns to the normal state.

The study of the positive oculo-cardiac reflex in cases of scarlet fever and diphtheria with the aid of the polygraph shows a slowing of the whole pulse, with stoppage of the heart in some cases for as long as four seconds; a production of premature contractions; a reduction of the a—c interval; a production of c+a beats; and in diphtheria cases only, a complete dissociation of auricles and ventricles. Gunson concludes that the oculo-cardiac reflex is of diagnostic value in confirming the neural origin of the great majority of the post-febrile brady-cardias and in differentiating them from cases of auriculo-ventricular heart block.—*N. Y. Medical Record*. (This phenomenon is fully discussed in Aschner's work on Diseases of the Digestive Organs).

Urobilin Test in Malaria. J. R. Snyder, Sacramento, Cal. *State Jour. of Med.*, July. Urobilin is formed in the intestine by reduction of bilirubin through bacterial activity. Normally, it is re-excreted as bilirubin but in any inflammation (or other serious lesion) of the liver, it reaches the blood as such and a part is excreted in the urine. The urine is treated with an equal amount of saturated solution of zinc acetate in absolute alcohol. To about 5 c.c. of such a mixture, 2 drops of Lugol's solution (Iodine 2%, KI 4% in water) are added. Filter. If

urobilin is present, the filtrate is fluorescent. The test is particularly diagnostic for malaria. Of 56 malarial cases by clinical diagnosis, 14 gave positive blood findings, 46 showed urobilin. In 40 others, there were only 3 positive tests, 2 late cases of pulmonary tuberculosis and one of cancer of the liver with cachexia.

Drug Habit. Joseph C. Doane of the Phila. Gen. Hosp., gives the following reasons for establishment of opium or other drug habit. Of the twenty-three cases in which smoking opium was given, association was really the starting point, upon the invitation of friends or from curiosity.

Association	86
Doctor's prescription	14
Smoking opium	23
Other drugs, mainly cocain	4
To keep awake	.2
To cause sleep or quiet nerves	17
Not stated	.7
Total	153

Menstrual Statistics Based on a Study of 4,500 Menstrual Histories. Dr. K. I. Sanes of Pittsburgh stated that 75 per cent of women menstruated regularly and 25 per cent irregularly. The most common regular type met with was that of 28 days, which constituted 72 per cent of this type. The 30 day type followed next in frequency with only 3.8 per cent, and the 21 day type with 3.3 per cent, etc. In some of the 31 days' type the menstrual flow appeared monthly on the same date independent of the number of days in the month. The most common irregular types were three to four weeks, then four to five weeks, two to three weeks, five to six weeks, etc. The most common ages of onset in order of their frequency were 15, 12, 16. The age of onset did not show any relation to regularity or irregularity of menstruation. The earliest age of onset in our series was 9 years and the latest 24 years. The most common duration of menstrual flow was three days, then four to five days, three to four days, five days, seven days, and four days. The irregular type of menstruation showed a larger percentage of long durations and smaller percentage of short durations, than the regular type. The quantity of flow in 45 per cent of women was normal, in 17 per cent scant, and in 37 per cent profuse. Irregular patients showed a higher percentage of profuse flow than the regular ones. Hyperthyroidism cases showed a very high percentage of profuse menstrual flow (65 per cent). Clots were very frequently found in menstrual flow and they did not

find them to be influenced by menstrual irregularity. Forty-seven and four-tenths per cent of women suffered from dysmenorrhea (if the term dysmenorrhea was to convey the idea of discomfort). In retrodisplacements the percentage was found to be 50.4 per cent. In 50 per cent of the dysmenorrhea cases the symptoms appeared during the flow, in 29 per cent before, in 17 per cent before and after, and in the rest after the flow or during and after. Most frequently the dysmenorrhea appeared the day before the flow, then the first day of the flow, then two days during, two days before, one day before and two days during, then three days before, and seven days before. Improvement in menstruation was frequently noticed with advance of menstrual life, after marriage and after childbirths, menstrual periods becoming more regular and the dysmenorrhea improving or disappearing entirely. The most common ages of menopause in order of their frequency were given as 50, 46, 48, 47, 51, 49, 44, 45, 52. The length of menstrual life was commonly given as 37 years, then 35 and 33. Sixty-eight per cent reported a menstrual life of 30 years or more. The very early and very late ages of puberty showed a rather early menopause.— Am. Asso. Obs and Gyn. in Med. Rec.

Pure Cultivation in Vivo of Vaccine Virus Free from Bacteria. Hideyo Noguchi (Jour. Exp. Med., Vol. XXI, No. 6) reports a method of cultivating vaccine virus free from bacteria, and at a lessened expense. The preparations by the skin method on calves, even though carried out under strict aseptic precautions, have a distinct bacterial content. This necessitates a "ripening" process for about three months to remove the bacteria, and during this process the activity of the virus is reduced. Furthermore the perfect bacteria-free virus is never produced in very active form. The methods of preparation advocated in this paper as a result of experimentation, consist in the cultivation by injection into the testicle of rabbits. The virus is propagated in this way practically pure and free from skin contamination and capable of indefinite transfer from one animal to another. The initial cost of the finished product is lessened, as 1000 cc. of the vaccine can be made from forty rabbits or four calves. Furthermore, epidemics among cattle, such as foot and mouth disease, often close the market to calves. No disease is yet known which need be feared with respect to rabbits. Nor is it necessary to keep them under quarantine any length of time to insure their freedom from infection. The further discovery was made that the maximum multiplication of the virus occurs the 4th or 5th day and diminishes after the 8th day. The vaccinal processes in the skin, cornea and testicle are practically iden-

tical when the skin or testicular strains of virus are used, also the skin lesions produced in the calf and in the human with the two strains are identical. The same excellent results were obtained in the experimental testicular inoculations of bulls. He believes this method superior to the skin inoculations, but subject to the same disadvantages from quarantined cattle. He finally concludes: "Pure strains of testicular virus are readily produced, and once secured may be propagated in a pure state in rabbits or bulls without difficulty and with economy. The pure strains thus obtained should supply an ideal form of virus for employment in the vaccination of human beings."—St. Paul Med. Jour.

A Substitute for Iodoform. Mouchet and Malbec found iodoform of value in the treatment of infected, especially of gangrenous wounds. The fetor disappeared, and the foul scab covering the surface gave place to healthy granulations. The extremely disagreeable smell of iodoform is an objection to its use, and an efficient substitute was discovered in quiniodol, which smells good, is just as powerfully antiseptic and equally keratoplastic. The iodine is in as good a state of dilution as in the liquid form. Quiniodol is cheaper than iodoform. The method of preparation is as follows: 1. Quiniodol 5 per cent. a. Dissolve 5 gr. of iodine in 100 c.c. of ether. b. Add 100 gr. of powdered red cinchona. c. Triturate the mass until the ether has evaporated completely. d. Pass the powder so obtained through a fine sieve. 2. Quiniodol 10 per cent. 10 gr. of iodine are dissolved in 200 c. c. of ether and triturated with 100 gr. of powdered cinchona. The 10 per cent strength is used for gangrenous wounds, the 5 per cent for sluggish and slightly infected wounds. —Paris Medical.

Schick Test. 1/10 C. C. of diphtheria toxin or 2/10 C. C. of 1:1000 or, if the first test is doubtful, 2/10 C. C. of 1:5000, is injected intracutaneously in the forearm. If an erythema appears within 24-48 hours, it is considered that the organism contains no protective bodies against diphtheria. Jerome Zuckerman of N. Y., N. Y. Med. Jour., Oct. 16, found the test positive (immunization indicated) in 20 of 52 children under 1 year; in 67 of 104 children between 1 and 2; in 59 of 124 children between 4 and 6. Schick found positive reactions in 7% of children under 1 year and in 53% of those between 1 and 5 years; Kolmer, 12% and 54%; Park 40% and 60%; Zuckermann 38.5% and 49%. Various other tables are given, as of time of return of positive reaction after injection.

Measles in Scotland. In 1913, 1,329 deaths from this disease occurred, the mortality being 2.8:1000. With 16 excep-

tions all deaths were of children under 15. (Caledonian Med. Jour.)

Value of Rectal Alimentation. Dr. Harry Adler, Baltimore. The usual method of feeding is unsatisfactory. The drop (Murphy) method, with peptonized milk and sugar solution, is markedly less annoying. In our experiments, the largest amount of nitrogen that we were able to supply was 8.9 gm., of which 8.06 gm. was returned with the stools. According to the observation of Dr. Muller, the stools of the individuals taking absolutely no nourishment contain 0.2 gm. per diem. With this deducted from our estimations of the returned nitrogen, we have in no case observed an absorption of more than 50 per cent. of the protein supplied; and it has fallen to as low as 30 per cent. The average amount of nitrogen absorbed in these cases was 1.14 gm. per diem. When we compare the amount of nitrogen lost by these cases with the amount that it was possible for them to absorb by colonic feeding, we realize how little we can accomplish. The difference between nutritional enteroclysis and normal salt enteroclysis is little over one-tenth of the tissue albumin loss per diem; over the periods of time that rectal feeding is usually carried out, it is, from a practical standpoint, an almost negligible quantity.

Discussion.

Dr. Jacob Kaufmann, of New York: Some of the nitrogen found in the stools is derived from the secretions, and this constitutes a possible source of error in making the estimations. I do not think that there is absolute proof of the uselessness of nutrient enemas.

Dr. Max Einhorn, of New York: We should try to give glucose by rectum, as it is the best material.

Dr. Franklin W. White, of Boston: I think it is valuable to contrast with this piece of work done by Dr. Adler the fact that nitrogenous equilibrium can be maintained by duodenal feeding. You can get it all in by the duodenum, but not by the rectum.

Dr. Louis M. Gompertz, of New Haven, Conn.: In some experiments that we conducted, a few years ago, it was found that the rectum is capable of salt absorption to about the same degree as the stomach. Experiments were also made with various other solutions. While I believe rectal feeding to be a pure makeshift, half a loaf is better than none. The use of salt solutions, water and dextrose solutions will tide the patients over the critical period required for rectal feeding.

Dr. John C. Hemmeter, of Baltimore: I should like to know whether the calculation that you can supply only one-tenth of nitrogen required by colonic feeding was based on the metabolism experiments made during rest or during activity. Dur-

ing rest, the food taken is entirely used in keeping up the heat of the body, which can be done without food, by artificial means.

Dr. Harry Adler, of Baltimore: The patients were absolutely at rest, in bed, or they could not have been fed by the drop method. We could supply only one-tenth of the amount needed when at rest. It is impossible to estimate accurately the absorption of sugar. We cannot give large amounts of milk by the drop method, because the rectum soon becomes irritated. We gave 8 ounces at a feeding, and gave three feedings a day. (Report of the Am. Gastro-enterologic Ass'n. in *Practologist*, Sept.)

Macewen's Sign in Diagnosticating Changes in Intracranial Pressure. Wilcox, *Archives of Pediatrics*, May, 1915, *Ther. Gaz.* Oct. 15. Macewen's sign was best determined by placing the stethoscope on the forehead just above the base of the nose. The skull was then tapped with the percussing finger or the hammer, over the parietal region, beginning just over the parietal boss, from which the percussing finger should approach to the point at which the stethoscope was applied. This should be carried out on both sides of the head. A typical sign observed in this way consisted in a high-pitched, sharp, short, cracked-pot note. It was most distinct when percussion was being done over, behind, or below the parietal boss on either side, was unchanged as the point percussed passed downward, and diminished in intensity and character as the point percussed approached the stethoscope. The latter point was important in differentiating between a false and a true Macewen's sign, as the reverse obtained in percussing a normal skull.

The writer concluded as follows:

- (1) The skulls of children of various ages and developments have percussion notes peculiar to the state of the cranium.
- (2) It is possible to establish a note normal to the various types of crania found in infants and children.
- (3) A positive Macewen's sign existed when variation from the normal note was found. It consisted in a relative change rather than a definite condition common to all diseased crania.
- (4) The sign was better elicited by the stethoscope than by the unaided ear.
- (5) Increased clearness of sound when percussion was done over the posterior portion of the skull rather than near the stethoscope was diagnostic.
- (6) The sign uniformly accompanied conditions of increased intracranial tension and was not found unless this causative factor existed.
- (7) It is equally applicable to infants and to older children.
- (8) It was present in 50 of 53 cases of tuberculous meningitis.
- (9) It was present in 17 of 18 cases of meningitis of other types.

(10) It was found to vary directly with the development and recession of cerebral symptoms as complications of disease not directly affecting the central nervous system. (11) It was present in 11 of 15 cases of pneumonia, in five of which lumbar puncture showed increased cerebro-spinal fluid under pressure. (12) The sign was uniformly lacking in children normal as to the brain and its coverings.

Abortive Treatment of Gonorrhea. Robinson, American Medicine, April, 1915. The patient urinates and the anterior urethra is gently washed out with about four ounces of warm normal salt solution (7:1000). No force must be used, and not more than a drachm or two of solution should be at any time in the urethra (so as to prevent any fluid from opening the cut-off muscle and penetrating into the posterior urethra), and the meatus should not be tightly closed by the tip of the syringe, so that the fluid may flow freely back. A few drops (5 to 10) of a 4-per-cent solution of cocaine, eucaine, or alypin are then instilled into the urethra. One drachm of a 2 per-cent protargol solution is then injected, closing the meatus with the fingers, held in for five minutes. In three hours a drachm of a one-per-cent solution of protargol is injected and held in for three minutes. This injection—1 drachm of a one-per-cent protargol solution held in for three minutes—is repeated every two hours until four injections have been given. The next four injections, at three hour intervals, are given with one-half-per-cent solutions; and the next four injections, also at three-hour intervals, are given with one-fourth-per-cent solutions. If we use argyrol, the method is the same, only the strength of the solution is different. The initial solution is 50 per cent and the subsequent solutions 25 or 20 per cent.

The protargol and argyrol solutions may also be used alternately. The discharge is examined for gonococci every day. At the end of two or three days we know what we may expect. If the abortive treatment proves successful and the gonococci have disappeared or are becoming less and less, well and good. If not, then also well, though not so well: at any rate we have not hurt our patient, and we may then proceed with the regular treatment of acute gonococcal urethritis.

Pneumaturia. The Jour. d'Urologie reports a case in a man aged 32, due to polymorphic, aerogenic, gram-negative bacilli. The last few drops of urine were passed with a gurgling sound. The urine was acid, contained much indican and some albumin. The sediment contained leucocytes and some red cells.

OBITUARY

Readers are requested to report promptly the death of all physicians in Western New York, or former residents of this region, or graduates of any medical school in Western New York, and to notify the families of the deceased of our desire to publish adequate obituary notices.

Dr. Herman Delmar Hunt, Syracuse 1874, died at his home in Preble, N. Y., July 30, from angina pectoris, aged 68. He had been post master for 19 years.

Dr. George E. Cragin, Yale 1867, died at his home in Kenwood, Madison Co., N. Y., Sept. 8, aged 75.

Dr. John Charles Maloney, Yale 1910, died at his home in Dundee, Aug. 1, aged 29.

Dr. Frank W. Maloney, Buffalo 1891, died at his home in Rochester, Aug. 23, aged 51.

Dr. William Seymour Morris, N. Y. University 1896, died at his home in Utica, Aug. 25, aged 43.

Dr. Victor Albert Ellsworth, Buffalo 1896, died July 7, aged 69. He was for 21 years superintendent of the Washington Home of Boston and was prominent in temperance work.

In our last issue, we incorrectly stated that the recently deceased Austin Flint of New York was the son of the physiologist. He was himself the physiologist, his father, the founder of this Journal, although interested in physiologic problems, being essentially an internist. We are indebted to Dr. Frank Van Fleet for calling attention to this error which was due to confusion, for the moment, on account of the change of designation of the decedent from Jr. to Sr.

A tablet to the memory of the late Dr. Roswell Park has been placed in the Buffalo General Hospital, by the attending staff, commemorating his constant service from 1883 till his death in 1914. The tablet is the work of Miss Anna Glenney.

Dr. Carl Anton Ewald of Berlin, died September 20, aged 70. His book on Diseases of the Stomach, translated by Morris Manges for the first American edition in 1892, ran through several editions in German and English, and was the accepted model for nearly all other works on the subject. He was editor of the Berliner Klinische Wochenschrift and Librarian of

the Berlin Medical Society. His position on the staff of the **BUFFALO MEDICAL JOURNAL** was admittedly honorary, in the sense that the acceptance of whatever tribute was thus paid to his professional achievements, honored the Journal. It would be an injustice to both parties, however, to imply that this position was merely nominal. Dr. Ewald had contributed to the original matter of the Journal a valuable paper, which was translated expressly for our readers, and he had, at various times assisted with advice and information. Several years ago, Dr. Ewald visited Buffalo and addressed the Academy of Medicine, surprising all by his fluent and correct English. We feel therefore, that in the death of Dr. Ewald, we must not only regret the passing of a distinguished medical scientist, author and clinician, not only acknowledge a personal association in special interests and their corresponding organization, but that we speak for a large number of the local profession, in lamenting the death of a genial gentleman whom we have known as a friend, though all too briefly.

Dr. Homer G. Newton, N. Y. University 1863, died at his home in Sherburne, Chenango County, October 11, aged 79. He was a surgeon in the U. S. army during the Civil War, one of the founders of the Brooklyn Eye and Ear Hospital and, for many years, a practitioner of Brooklyn.

Dr. Horace Doolittle, the oldest practicing dentist in the state, died at his home in Albion, October 20, aged 80.

PERSONAL.

Announcement of removal, travel, and other matters of interest are requested. Please report errors in the listing of any physician in the State and other directories, that we may co-operate with the State Society in securing a correct list.

Dr. M. J. Wilson of Warsaw visited in Lowell, Mass., in October.

Dr. C. A. Brownell of Buffalo is about to move to Jewettville.

Dr. David Wheeler of Buffalo, who joined the American Ambulance Service early in the European War, subsequently entered the Foreign Legion of France. On Sept. 28, he was wounded in an engagement and, in spite of a shattered leg, crawled 7 miles to a place of safety, attending to the needs of other wounded soldiers, as he went. It was at first thought

that the leg would require amputation but later reports indicate that this will not be necessary. It is no breach of neutrality to respect the sentiment of love for an ancestral country and the heroism displayed in voluntary service with its allies.

Dr. Horace H. Le Seur of Niagara Falls, son of Dr. J. W. Le Seur of Batavia, was married to Miss Minerva Crossett, at Batavia, Sept. 29. Dr. and Mrs. Le Seur will reside at 711 Townsend Place, Niagara Falls.

Dr. F. W. Welch of Buffalo, has been appointed Sanitary Inspector at a salary of \$1000.

Dr. James C. Haley of Buffalo has been promoted from Assistant Medical School Examiner, to Sanitary Inspector at \$1000.

SOCIETY MEETING

The Medical Society of the County of Ontario, following the state law, has appointed a County Milk Commission. The medical profession is represented by Dr. A. L. Beahan, chairman, and Dr. Wm. A. King.

TOPICS OF PUBLIC INTEREST

Three Cent Fares in Arkansas. Federal Judge Jacob Fisher has granted continuance till April 17, 1917, on injunctions by the State R. R. Commissioners against three-cent fares.

Effect of War on Immigration. For the fiscal years ending June 30, immigration reached the million mark in 1905 and averaged about a million until 1914. For 1915, the immigration was 326,700, rather less than the average from 1850 to 1880, except for a marked reduction corresponding to the Civil War. It is not generally realized that, apart from ordinary travel, our country is subject to a very considerable emigration of aliens and others, mostly recently naturalized citizens. For the year 1912-13, the immigration was 1,197,892 and the emigration 611,924, net increase 815,303. For 1913-14 the respective numbers were 1,218,480; 633,805; 769,276. For 1914-15, 326,700; 384,174; 50,070. The last number represents the net gain for the reason that non-immigrant aliens become relatively important in the last year, whereas in previous years they are lost in the bulk of immigrant aliens. For July and August, 54,510 persons entered and 57,752 left the country, not counting ordinary travel.

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ORIGINAL ARTICLES

The right is reserved to decline papers not dealing with practical medical and surgical subjects, and such as might offend or fail to interest readers. Contributors are solely responsible for opinions, methods of expression and revision of proof.

The Treatment of Cardio-Vascular Renal Disease.

By CHARLES G. STOCKTON, M. D., Buffalo.

Of the various types of cardio-vascular renal diseases I shall speak of but three, with special reference to treatment.

First—There is a type of valvular heart disease with myocardial changes, secondary renal disease and, later, vascular sclerosis. In the beginning there is low blood pressure and cyanotic kidneys. After a time there is renal insufficiency and true nephritis. A moderate uremia develops and there is an attempt towards high blood pressure which often is frustrated because the heart will not endure the increased effort. As the arterial tension rises, the strength of the heart declines and, with the dropping of blood pressure, the kidneys become more and more insufficient.

In these cases the treatment should be directed chiefly towards the heart. By improving the function of this organ, the vicious circle may be interrupted. Rest in bed is required, systematic massage, Neuheim baths, a limited intake of fluids, a diet moderate in amount and mixed in variety. Digitalis and its congeners are usually indicated and apocynum is called for, especially with the onset of edema.

Second—There is a form of diffuse nephritis, with the interstitial change dominant, more often seen in young adults, which may start from tonsillar or other infection. In some cases the etiology cannot be traced. The disease is characterized by great lowering of kidney function, accompanied by rise in blood pressure and cardiac hypertrophy and, at first, without obvious change in blood vessels except the element of arterial hypertension. The pathology seems to be primarily renal, the cardio-vascular condition coming as a result of kidney disease. When the arterial hypertension is relieved, the

arteries may be scarcely palpable. Doubtless more striking evidences of vascular disease would appear if the disease was long continued. However, this arterial sclerosis is not often observed as the disease is relatively rapid in its course. Naturally, under the circumstances, there is a high degree of retention in the blood of uric acid, urea nitrogen and total nitrogen, especially of the total nitrogen. As a result of the intoxication, the patient suffers from precordial distress, cardiac arrhythmia and transient or persistent dyspnoea. There is retinitis, albuminuria and casts. The functional renal power is low. By stimulating the heart and fasting the patient temporary improvement occurs, perhaps to be followed by a sudden drop in systolic pressure, while the diastolic pressure remains high, a coincident rapid increase in nitrogen retention, the onset of a terminal coma.

This disease differs radically from the usual type of chronic interstitial nephritis which, as is well known, may endure for years with but moderate disturbance of the general health, so long as the patient's condition is carefully guarded. On the contrary, these cases in younger patients often endure but for a few months and are fatal.

By treatment the end may be delayed and the disease converted, perhaps, into a slower process. To be of real service, the treatment should be early begun and should keep the question of kidney function in the foreground. It is a fatal mistake to delay early radical treatment. The patient should rest in bed, the skin be stimulated with baths, and stagnation in the alimentary tract should be avoided.

The diet is of prime importance. The caloric intake should be so lowered that nitrogen retention in the blood is reduced. To accomplish this occasional starvation days may be required, the nitrogenous foods kept below fifty grammes per diem, and the total intake of food not above one thousand calories. In this matter patients vary considerably, both as to the retention and as to the effect of diet upon that retention.

Acidosis may be very high, but occasionally, or at least, temporarily, this is not the case. In one instance, seen with Dr. Allen Jones, the hydrogen ion concentration of the urine was found to be at six by the method of Sorenson*, the hydrogen ion concentration of the blood was found to be 7.6 by the method of Rovontree and Levi**, and the carbon dioxide tension of expired air was found to be 5.5 by the method of Fredrica***, the titratable acidity of the urine was 10, all evidences of the absence of acidosis. Nevertheless the total nitrogen

*Archiv. Expr. Path. and Pharm. Indicator Method, alizerin, neutral red, phenolphalatein.

**Archiv. Int. Med., Oct. 1914.

***Berlin Klin. Woch., July 1914.

retention was 144 when it should have been 23 to 25, the urea nitrogen 72.6 instead of the normal 12 to 14, and the uric acid retention 11.9 instead of the usual one-half or one milligramme to one hundred cubic centimetres of blood. This high retention, with absence of acidosis, was to me a great surprise. Latterly, in all cases of nephritis showing acidosis, I have introduced Fischer's solution by the Murphy drip method, according to the full tolerance of the patient and, in emergencies, by the intravenous method. I have satisfied myself that the procedure is valuable. The taking of alkaline salts accomplishes but little in severe cases. It is not always easy to decide the question as to the amount of water to be permitted the patient. When the heart is not seriously involved, and the acidosis is high, I attempt to introduce an abundance of alkaline water, and for this purpose I have a high regard for the Source du Pavillon of Contrexeville and the Grande Source of Vittel. A colleague seems to have had success by repeated venesections, periods of fasting and the drinking of abundance of water, iso-tonic with the blood.

Third—There is a familiar type of cardio-vascular disease, usually seen in those just beyond middle age, more often in business men overtaxed with responsibility, men who eat too much, perhaps drink alcohol regularly, who have exercised too little and who, consequently, suffer from depression in the power to metabolize. The disease appears to rest on a failure in metabolism and a consequent auto-intoxication; yet it is probable that an arterio-sclerosis anticipates the loss in metabolic power in most cases.

His state of health may first attract the patient's attention because of attacks of dyspnoea or angina; however, his friends had noticed that he was becoming irritable and less efficient.

On effort at first, later without effort, while quiet in bed, there are attacks of shortness of breath, sometimes of asthma. There is complaint of mental confusion, *muscae volitantes*, tinnitus or other symptoms of cerebral disturbance. On examination there is found a high tension pulse, full arteries, slowly moving blood mass, high blood pressure, a trace of albumin in the urine, a few tube casts and the functional test shows renal insufficiency.

The heart is hypertrophied, often with gallop rhythm, signs of aortic roughening; later there is dilatation and mitral, perhaps tricuspid, insufficiency. As a rule there is a degree of pulmonary vesicular emphysema. The liver is enlarged and over sensitive to pressure, and functionally deficient. Edema develops in the dependent portions and soon there is evident anasarca, often with fluid in the serous cavities. Should the patient continue to satisfy his appetite, especially if he is permitted to select food according to his taste, his

symptoms will become intensified and the physical signs will betray a steady advance in cardiac, arterial, hepatic and renal disease.

I have studied and directed the treatment of numerous cases of this sort in which I have had the good fortune to have the valuable laboratory co-operation of Dr. John L. Butsch. Invariably the metabolism has been found to be seriously compromised and acidosis has been shown to be an important factor.

As to metabolism, there is especially found a low nitrogen balance, often also a lowered carbohydrate balance, occasionally glycosuria. Invariably there is abnormal retention, not infrequently of high degree. This retention in one group of cases relates especially to uric acid. In ordinary health we rarely find more than 1.50 milligrammes of uric acid in 100 centigrammes of blood; more often not over .50 milligrammes, while in cases of this group we have found 5.00 milligrammes to 10.00 milligrammes or more, and yet without manifestations of gout.

In another group of cases the retention in the blood relates especially to urea nitrogen and total nitrogen, which may rise to a point two, three or four times the normal.

In yet another group of cases the retention in the blood is very general, including not only a high percentage of uric acid, but also nitrogen, urea and also glucose.

We have interpreted these findings as meaning, in the uric acid group, that the liver was specially incompetent; in the nitrogen retention group, that the kidneys were particularly defective; in the group showing retention in a wide sense, that the whole metabolic and eliminative mechanism was crippled.

The clinical study of these cases confirmed the conclusion reached by laboratory investigation. In all groups the cardiac involvement was judged to average about the same; in the uric acid cases, there were evidences of hepatic insufficiency and all the symptoms of uricacidemia; in the nitrogen retention group, there was found, by the phenolsulphonephthalien test, a poor renal function, and there were the symptoms of uremia, often in excess of the cardio-vascular symptoms, grave though they might be.

All these observations were of great interest to us, but the interest was intensified by finding that by methods of diet, exercise, baths and alkalinisation we were enabled to relieve these cases in a manner more satisfactory than we had noted by any other methods of treatment. It is true that resort was had to digitalis, to apocynum and, occasionally, to the nitrites or to adrenaline, as the case might indicate. The point is that the improvement observed was over and beyond that

which these drugs alone would induce; further, it usually became possible to abandon early the use of these drugs altogether, the patients gaining steadily so long as the dietetic and other hygienic measures were strictly followed, governing the intake of nitrogenous, carbohydrate and fatty foods by the studies of the blood and urine, weighing carefully the food, and estimating the caloric value thereof.

In the beginning starvation days are prescribed, much as is adopted in diabetic cases; following this we commonly resort to the Karell diet, made known in this country by the publication of Dr. Freeman Ford Ward* of New York. This consists in allowing the patient 200 c.c. of milk at four hours' interval, four times in twenty-four hours, permitting no water or other fluids save the milk. Generally speaking, the urine at once rises in amount, so that from two to five times as much urine is discharged as there has been fluid imbibed in the twenty-four hours. The edema promptly subsides together with the dyspnoea, precordial distress and other symptoms. This limited milk diet may be pursued for a few days or even a week, after which an increase is made in food and drink, according to indication. We are careful not to prolong starvation so long that the patient's vitality is lowered. We gradually increase the intake, but govern the quantity by study of the metabolism, never permitting the patient to exceed his nitrogen or carbohydrate balance.

To illustrate, Mr. B— came to me five years ago, suffering from attacks of dyspnoea, angina, precordial and cerebral distress, congested lungs, large liver, scanty, albuminous urine, containing numerous casts and blood cells, having general edema, apparently approaching his end. He was not syphilitic. He is a large and intelligent man, overworked in business, a big eater and formerly fond of his "highballs." His nitrogen and carbohydrate balance was determined for me by my late lamented colleague, Dr. Fred. C. Busch. The patient's dietary was arranged according to his metabolic possibilities. He scrupulously obeyed his instructions and at this day he feels perfectly well. His once enormous heart is much smaller, he escapes dyspnoea, angina and edema. However, the urine continues to show albumin and casts, and, by the functional test, he discharges only 19% of the phenolsulphonephthalein in two hours. He has still the mitral insufficiency. Whereas his systolic blood pressure was formerly about 200, it is now 170 systolic, 120 diastolic, and the heart load 50. He is now taking about 1894 calories: proteid 39.50 gm., carbohydrate 186 gm., fats 79 gm. He voids 1014 c.c. of urine, containing 2 grammes of albumin. The acidity is 46 by tit-

*Medical Record, 1912, Mar. 30.

ration. He discharges 35.8 gm. total solids and 13.20 gm. of urea. Ammonia, .436 gm., hydrogen ion concentration in urine 5.7, the normal being 6. Hydrogen ion concentration in the blood is 7.4, this being the low normal. The CO_2 in alveolar air is 4.9%, the normal being 5 to 6%. The percentage of CO_2 in alveolar air indicates in this case a slight degree of acidosis. The hydrogen ion concentration in the blood corresponds, but the urine shows no acidosis.

You will remark that this does not sound like a very well man. Quite true; he is a very much diseased man; his organs were badly and permanently damaged when I first saw him. But this is the point: this seriously ill man, 64 years old, has been symptom-free for all these years; he is living and happy, simply because he cheerfully submits to and never oversteps certain strict limitations of living that have been imposed. I wonder from year to year how long he is to continue. His case is the longest, yet I have another nearly parallel and several others that approach these.

I have spoken of the use of alkalies in these cases. That brings up another question, that of acidosis. At one time I supposed that acidosis was controllable by the administration of indifferent alkalies by the mouth. The studies of Palmer, Henderson and others have shown me that I was wrong. The titratable acidity of urine can be controlled by alkalies, certain symptoms are thus relieved; yet in a deeper sense acidosis is not relieved by ordinary alkaline drugs. It is a question of hydrogen ion concentration. This deeper acidosis (so to speak), if relieved, must be so by having recourse to dietetic measures, by increasing tissue oxygenation rather than by drugs. Nevertheless, certain alkalies are clinically of distinct value. And here again I must refer to the benefit which I have seen patients receive at the French spas, in the Vosges, near where the conflict is now raging; I refer to Contrexeville and Vittel. If time permitted I should like to report the favorable effect which during three different visits at these springs I have observed in retention cases, uric acid and nitrogen retention, cases analogous to those which I have described in this group.

It may be suggested that the improvement noted was the result of change in environment, to release from business cares and to relaxation. Of course, these factors are to be counted, but the action of the water cannot thus be dismissed.

There remains to be considered those cases that are syphilitic. No influence is more potent than this infection in crippling metabolic power. Often there is extensive and lasting damage to the parenchyma of important organs. However, there is usually a percentage of functional disability which can be removed by suitable specific medication.

With cases wherein the heart, arteries and kidneys are seriously compromised, great circumspection must be practised in using sufficient mercury and arsenic to accomplish real benefit. Some cases that seem very unpromising will make wonderful gain under Salvarsan and hydragyrum, and although a proportion of cases will be harmed and occasionally one will quickly succumb, I am accustomed to try specific medication guardedly and watchfully. One must be very careful where there is kidney involvement; and nearly as much danger exists in using effective doses in syphilis of the heart.

We have noted in certain luetic patients in whom there is very marked metabolic deficiency, a curious contradiction in the metabolic processes, from time to time in the course of the disease. This is sufficiently striking to lead to suspect syphilis even when the Wassermann reaction is negative. For instance, one case originally showed renal insufficiency, very high retention, especially of uric acid. There was acidosis and the hydrogen ion concentration proved it.

The patient was relieved by diet from edema, dyspnoea, and arrhythmia. After eighteen months with the same treatment, the dyspnoea and gallop rhythm returned. We suspected a return of acidosis, but on investigation we found a good functional renal power, a normal CO_2 tension and normal hydrogen ion concentration in blood and urine. There was a systolic blood pressure of about 200, a diastolic pressure of 125. There seemed to be no good reason for the return of the symptoms. Although there was a negative Wassermann test, we gave 18 cgm of Salvarsan and the patient was relieved of his symptoms, saying that he felt better than for two years. This man was made worse by the use of Fischer's solution as might have been expected. Fischer's solution is useful in kidney insufficiency with acidosis; it is harmful in edema and other symptoms that are cardio-vascular in origin.

Disinfection of the Hands and Abdominal Skin Before Operation. McDonald (Surgery, Gynecology and Obstetrics, July 1915) advises the following solution:

Acetone (commercial), 40 parts;

Denatured alcohol, 60 parts;

Pyxol, 2 parts.

With this solution, in no case was any growth obtained after thirty seconds' immersion. This period, however, is too short in practice, and one minute is advised to provide a margin of safety. Preliminary washing with soap and water was found to be no aid to efficiency, but was rather a slight hindrance. It had the additional disadvantage of irritating the hands.

A Case of Complete Dislocation of the Outer Extremity of the Clavicle.

DR. EDWIN L. BEBEE, Buffalo.

P. S., a chauffeur, was injured when the heavy touring car which he was driving capsized. He was thrown out on his left side. The edge of the body came down on the right shoulder, striking just below the acromion process, on the deltoid overlying the head of the humerus. The humerus with the scapula was forced downward, backward and inward. The outer end of the clavicle was forced upward over the acromion process. All the ligaments uniting the clavicle to the scapula were torn. Not only the superior and inferior acromio-clavicular, but also the conoid and the trapezoid.

He complained of pain in the shoulder, and inability to use the arm, or to move it without pain. Inability to raise the arm. The right shoulder was lower than the left. The outer extremity of the clavicle was elevated to make a marked prominence, whose outlines were perfectly distinct.

Reduction was accomplished without difficulty. The surgeon's hand in the axilla, the patient's arm by his side, traction outward was made while the end of the clavicle was pressed into place.

An attempt was made to maintain the reduction by Stimson's apparatus. A strip of adhesive, three and one-half inches wide, was carried under the elbow, and upward in front of and behind the arm, to cross above over the outer end of the clavicle, and extend down and inward beyond the point of crossing, about four inches. This was reinforced by a muslin bandage passed in alternate turns around the body; and from under the elbow over the shoulder, of the affected side. This bandage was fixed in position by sewing the turns together.

Such a dressing would have been sufficient to hold the bones in place in case of incomplete dislocation. When the coraco-clavicular ligaments being intact the tendency to displacement is very much less. In this case all was well as long as the patient remained quiet on his back. But when he moved about or resumed the upright position, the dislocation soon recurred. Therefore an operation was decided upon.

Under ether a four inch incision was made transversely over the joint. The joint was cleared out and the dislocation reduced. A point half an inch behind the articular surface in each bone was drilled straight through, from without inward away from the skin surface. Here the margins of the acromion and the clavicle approach one another at an acute

angle. So that a suture can be introduced without invading the joint, which will hold the bones in place. A copper wire of rather large gage was selected. This was carried through the hole in the clavicle, from without in, in the direction of drilling. The end was brought out between the bones, and carried through the acromian in the same direction. It was then brought out between the bones to meet the other end. Thus a figure of eight was formed, which effectually prevented the bones from overriding one another. It was planned to remove this suture later if it proved a source of irritation.

There was no recurrence of the deformity. The wound healed promptly. Motion was allowed after three weeks. The patient soon resumed his occupation with complete use of the shoulder. There was no pain or limitation of motion. There was some tenderness or palpation over the suture at the points where it entered the bone. But evidently the irritation has been negligible as the patient has not applied for its removal.

An absorbable suture of chromic gut or kangaroo tendon would have been preferred, but it was feared that on account of the man being large and muscular the suture would not hold until union of the ligaments was firm. For this same reason copper wire of rather large size was selected instead of silver wire.

It is usually recommended to drill obliquely, so that the ligature will pass from the outer surface of the bone through the articular surface. This method requires wider exposure. Is more difficult. The ligature tends to break out, on account of the thinness of the bone. When drilling through the whole thickness one can easily take as big a bite as is necessary. It is less likely to heal kindly on account of the access of the synovial fluid. It is more apt to give an immobile and tender joint.

Influence of War on Prostitution. Butte, Bull. et Mem. de la Soc. de Med. de Paris, Sept. 24. For the year ending July 31, 1914, 14,851 visits were made to girls in houses, 2 syphilitic and 2 non-syphilitic venereal cases being found. For the year ending July 31, 1915, the numbers were 8,348 0 and 2. Regular visits to girls not in houses, 1913-14, 48,071, 32 syphilities and 47 non-syphilities; 1914-15, 26,174, 22 and 65. Street walkers and amateurs arrested, 1913-14, 46,228, 158 syphilities, 326 non-syphilities; 1914-15, 45,452, 209 and 871. Unregistered girls, 1913-14, 3,201, 142 syphilities, 644 non-syphilities; 1914-15, 3,907, 167 syphilities, 939 non-syphilities.

Multiple Cystic Kidney.**Report of a Case.**

By WM. STANTON, M. D., Webster, N. Y.

Mrs. L. M. G. age 24, from childhood has passed a large amount of urine, but being apparently in perfect health never gave it serious thought or consulted a physician, considering it normal for her. The diseases of childhood passed over her lightly, and she was never seriously ill until, while at her summer home during college vacation in 1912, when she was suddenly attacked with a violent headache and vomiting, followed by slight stupor. The diagnosis at the time was acute indigestion, and her recovery required some two or three weeks before she felt that she was again in perfect health. She returned to school, and in the class of 1913 completed a brilliant college course, leading her classes and taking an active part in the college athletics, including rowing and swimming, at both of which she was more than ordinarily skilful. She then taught one year in the Rochester School for the Deaf, where she was considered exceptionally promising in ability. In September, 1914, she married but was never pregnant.

During the night of February 26, 1915, she suffered an attack similar to that in 1912, except that there was very little stupor and that there was also severe pain in the right lumbar region, which led to the discovery of a tumor lying below the liver, and which was evidently the seat of the abdominal pain. Her attending physician offered no positive diagnosis, but advised her to go to her parents, consult their physician and a surgeon as soon as her condition would allow, believing an operation advisable if not necessary.

I first saw her March 4 upon her arrival at her father's home, and the same day took her to the Park Avenue Hospital in Rochester, where she was seen in consultation by Dr. W. B. Jones. The only abnormalities discoverable at this time was a trace of albumin, polyuria and the tumor. Diagnosis was reserved, but right kidney involvement strongly suspected with a bare possibility of ectopic gestation. Dr. Jones advised operation, which was concurred in, and March 5, assisted by the writer, he operated, making a long median incision. Upon palpating the tumor it became apparent that it was the greatly enlarged right kidney which was clearly multiple cystic. Examination of the left kidney showed it in a similar and almost as bad condition. All other organs appeared normal. The patient rallied nicely from the ether anesthesia, union was primary and perfect, recovery rapid and uninterrupted, the

patient riding to her father's home ten miles away March 18 apparently well, except for a slight albuminuria with polyuria, voiding 50 to 65 ounces per 24 hours.

For two weeks she seemed in perfect health, was active and optimistic as formerly, and was planning to return to her own home when, at 12.40 a. m., April 1, without any premonitory symptoms, while retiring after a very happy evening spent with a few close friends at her father's home, she was suddenly stricken with a terrific headache in the vertex and frontal regions accompanied by vomiting. I saw her at 1 a. m., just before she had a slight tonic convulsion, soon to be followed by three other more severe general tonic convulsions, which were followed by a deep coma with complete relaxation of the sphincters and apparently impending death.

However, life continued, and the next 24 hours saw the sphincters resume their functions, she became conscious and recognized voices but could not see; she complained of no pain except a dull pain in her head, was very thirsty and occasionally vomited with little or no nausea. Mentally she was entirely rational, calm and even cheerful. The urine, which became very bloody, reached 80 ounces the first 24 hours it could be collected, Sp. Gr. 1006, albumin test very heavy. It also contained a gelatinous appearing substance which would not pass through filter paper. She retained nutrient enema, and within three days convalescence seemed well established and continued for fourteen days, by which time she appeared as well as formerly except for slight weakness, and the usual trace of albumin and polyuria.

April 15 she suffered another attack identical to that of April 1, only that the convulsions were even more severe, relaxing only under chloroform, and reappearing every few hours for about 24 hours. The urine was the same as before, as were all the other symptoms, only that they were more profound and did not begin to clear up so soon, still her wonderful recuperative powers asserted themselves and again she rallied, gained strength, and improved steadily until April 22, when the dreaded convulsions returned in a more mild form and again she passed into a coma which was not so deep, and there were conscious intervals of a few minutes every few hours during which intervals she received nourishment and water, recognized and conversed with relatives until a few hours before her death April 29. Her death was easy and peaceful. During the last seven days the secretion of urine gradually lessened to almost none.

The autopsy showed all the organs except kidneys perfectly normal. The right kidney on removal weighed 3 lb 14 oz., and measured 7 3-8x4 1/4x3 3-8 inches. The left weighed 3 lb 3 oz., and measured 6x4 1/2x3 5-8 inches. These specimens are

now in the Museum of the University of Buffalo, Medical Department.

It may be of interest to note that the father of the patient gives a history of polyuria since some years before her birth, and at the time of her death is in the advanced stage of chronic interstitial nephritis.

Action of Cinchonine, Cinchonidine, and Quinidine on the Isolated Uterus. Hale, *Journal of Pharmacology and Experimental Therapeutics* for May, 1915. *Ther. Gaz.* October 1915. By adding the sulphate of these bases to oxygenated Locke's solution in which a segment of guinea-pig's uterus was suspended, it was found that all three induced strong contractions of the uterus with an increase in the strength and regularity of the spontaneous movements. These effects were still equally marked after the motor sympathetic had been paralyzed by large doses of ergot and after atropine had been given, thus indicating a direct action on the muscle. These alkaloids thus act on the uterus like quinine, but all of them are considerably more effective than quinine is. Quinidine sulphate, the most active, appears to be ten times as effective as quinine. As an explanation of this it is pointed out that quinidine is the dextrorotatory isomer of the levorotatory quinine, and thus behaves like a number of optical isomers which, having only a structural difference in chemical constitution, nevertheless differ widely in action.

Urochromogen Reaction in Pulmonary Tuberculosis. Max Biesenthal of Chicago, Ill. *Med. Jour.*, Nov. M. Weisz, *Muench. Med. Woch.*, 1911, found that the degree of the Ehrlich diazo test in tuberculosis varied directly as the unfavorable result but was not uniformly available. The author in 155 cases, followed the suggestion of Weisz that urochromogen, a decomposition (?) product of the normal urinary urochrome was present when the toxins of the disease were sufficient to interfere with normal oxidation. 1 C. C. of urine and 2 C. C. of distilled water are placed in each of two tubes, one being used as a control. To the other are added 3 drops of 1:1000 potassium permanganate solution. A yellowish color, varying in degree, indicates the presence of urochromogen. The amount of urochromogen present and its presence in any detectable amount is an unfavorable sign and the author believes that it is more reliable than clinical evidence, although there is an agreement in 70-80% of cases. The urochromogen test may, however, fail in moribund cases and the author warns against accepting it as absolute without much further study.

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No. 5

The Possibility of Vaccination Against the Exanthemata.

Very early in our professional career, when we were deeply impressed with the scientific side of medicine, a side not long developed and more startling in contrast with the older form of empiricism, still common at that time, than at present when it is better developed but less conspicuous, a retired physician tried to impress upon us that the great problem before the medical profession was the control of scarlet fever. We remember, with shame, the scorn which we tried to conceal out of deference to his years. With longer experience, in spite of devotion to an entirely different line of professional interest, we are inclined to think that the opinion was and is correct. To a large degree, other problems which, at the time mentioned, seemed far more important, have been solved. Many infections have been practically exterminated. The prophylaxis of others, as typhoid, tuberculosis, the venereal diseases, is quite clearly understood, only inertia and lack of practical means preventing their full applications. In regard to many diseases, of the same or different nature, we seem to lack only the development of technic or success is prevented by degenerative changes, largely inevitable, or else the problem, while just as important and just as far from solution for the actual case, involves a relatively insignificant proportion of the race.

Barring accidental escape, the exanthemata, excepting variola, still attack nearly all members of any large community. Having occurred, they confer a nearly absolute, life-long immunity, justifying the term semelincident, too little used. For

these reasons, by the law of chance, they are preeminently children's diseases, as was variola (accented on the *i*, if you please) before its artificial and nearly perfect prophylaxis. While all the exanthemata deserve serious consideration, scarlet fever and variola are the only ones having a high mortality—approximately 10%. Excepting that we have generally succeeded in enforcing better and prompter care of patients, have appreciated better the necessity of guarding against sequelae, and have discarded certain older methods that were more or less harmful, it can not be claimed that we have made any progress in the therapeutics of these diseases. Even smallpox, against which we have almost perfect prophylaxis, is not more successfully **treated** now than many years ago, perhaps less so, from relative lack of experience.

It is important to realize that **vaccination** in the limited sense, is an entirely different process from vaccination against bacterial diseases in general, or from the use of any kind of serum. Vaccinia has been proved to be a mitigated variola. Whether or not, the beautifully complicated life cycle of the more or less hypothetic variola protozoan, exists in fact or in fancy, the fact remains that antivariolar vaccination sets up a mitigated dwarf disease, very rarely serious and with a mortality in millionths or less, instead of percentages. Yet this dwarf disease confers an immunity equal for several years to that of typic variola and, with rare exceptions, sufficient to insure that even with neglect or repetition, infection will result only in atypic mild varioloid.

Now it is obvious that vaccination against other diseases, in the sense pertaining to variola, is limited to semelincident diseases and cannot apply to diphtheria, gonorrhoea, malaria, tuberculosis, or any other disease which does not protect against its own recurrence.

Furthermore, if the life-cycle theories are correct, there can be no true vaccination against a bacterial disease, even if practically semelincident like typhoid.

It is, therefore, among the exanthemata—and possibly some protozoan diseases comparatively rare in this country—that we must look for any close analogue of antivariolar vaccination and, as stated, it is only in regard to scarlet fever that the danger assumes proportions which render the problem of transcendent humanitarian importance, though its ultimate applicability to measles, must also be considered.

It has already been claimed, though with even less evidence than for the variolar organism, that the other exanthemata are due to analogous protozoa, which pass through analogous life cycles.

Smallpox produces mitigated types in bovines, equines (grease), and ovines. Whether horse and sheep pox may be

used practically in place of vaccinia, is a question which has, apparently, not been decided but which is decidedly academic in view of the very satisfactory results of bovine virus.

Anyone who will carefully go over a check list of infections will be convinced that scarlet fever and the remaining exanthemata are the only ones in which the two requisites of semelincidence and possibility of modification of life cycle of the germ, in connection with the practical consideration of wide incidence among civilized people, are fulfilled. We need not quibble as to whether it is proper to term the introduction of killed or scotched germs **vaccination** or not, and we may be very hopeful as to the temporary or even prolonged prophylactic value of germ products of all kinds, when better technic has been attained. But for any true analogue of antivariolar vaccination, we are limited to the exanthemata (or to diseases of little interest to us in this country) and, for practical, numeric reasons, to scarlet fever.

Reduced to bare practical considerations, the problem is to find an animal susceptible to scarlet fever, but in mitigated form, whose virus, again inoculated into man, will reproduce the disease in practically the same dwarf form.

While we would not venture to predict that such a disease exists, there are some reasons in its favor. Few or no infections are limited to a host of a single species, though certain diseases, as typhoid and gonorrhea, are practically restricted to man, so far as spontaneous origin is concerned. Natural immunity to scarlet fever, in the face of marked exposure, is quite freely observed. Such immunity, for semelincident diseases generally, is not hereditary in the true sense, though it may occur from maternal infection during pregnancy. But, in the great majority of such infections, abortion occurs and, if it did not, a history to account for the immunity of the child, would almost always be obtainable. While, of course, resistance to exposure does not necessarily imply any true immunization, it is strongly suggestive. Again, scarlet fever quite often develops when it cannot be traced to a human source. This argument is obviously weak, still it suggests an accidental protection analogous to cowpox.

Assuming that scarlet fever does occur in a lower animal, in some type, we should, on general principles, expect that the animal would be a common one, though not necessarily closely related to man zoologically. Certain observations as to the period of inoculability of yellow fever, for instance, suggest that the stegomyia is not an accidental carrier but that it actually has to develop the same disease, itself. Again, if there is an occurrence of scarlet fever in a lower animal—using the word animal in a broad sense—it is probably in a mitigated form. The association of children with domestic

animals is so general that the occurrence of a fatal or even conspicuous disease in the latter could scarcely have been overlooked. Even if the host were any common insect or vermin, the occurrence of a serious epizootic in the wake of scarlet fever in the human being, would be conspicuous by the deaths.

Care of the Cervix After Labor.

This article embodies the plea of a victim of carcinoma of the cervix for her sisters. It ought to be eloquent with her sincerity and lack of bitterness at her own fate, but no attempt will be made to make it so by mere words, while the writer is unable to inject into it anything of scientific or technical value. It is a dictum of gynaecology that uterine cancer is a disease of parous, fibroids of nulliparous women of middle and elderly life. Like many another dictum, it states not an absolute fact but still a close enough approach to truth to have weight.

Social conditions have so changed within the last two generations that the woman of middle life, who has reared her family, is no longer merely a wife, mother and keeper of a home. With abundant experience, often increased means for leisure from routine tasks, with matured brain and body, she is just about to enter a field of wider usefulness to her family, now reaching to the third generation, to her acquaintances, and by her interest in educational, sociologic and even business and, to some degree, political activities, to the state. The loss of a child, of a young and inexperienced woman, while causing equal grief and regret, is from the standpoint of society, potential rather than actual. Economic conditions have so altered that, on the one hand, the loss of a man no longer necessarily involves the financial break-down of a family while, for the same reason, the loss of a woman has increased in its economic importance. The present problems of society include, in a greater degree than ever before, individual and educational effort toward economies of the home; moral prophylaxis; enforcement of details of sanitation and hygiene; guidance of the dependent classes in various ways. For all of these problems, without considering at all the possible engagement of women in politics, society is very largely dependent upon women. Even if taking no active vocational part in the various movements bearing on these problems, if nominally merely the housewife, dependent on her husband for support, the average, intelligent, retiring woman of the home still has leisure, tact and practical knowledge for aiding in carrying out the necessary reforms, far more than the aver-

age, equally intelligent husband who is engrossed in his business. In fact, there has been no time in the world's history when progress along right lines has depended so largely on normal womanhood as it does at present and will in the near future.

Without underestimating the importance of venereal diseases, especially of married women, without advocating the suspension of child-bearing or ignoring the fact that, in every sense, physical, mental and social, woman should be regarded broadly and not in the narrow sexual sense, the fact remains that procreation involves a higher tax than it should. Pregnancy is not a disease but it borders closely on the pathologic. It still has a direct mortality of at least one per cent—more than some infections with bacteria—and its indirect mortality is probably not far from ten per cent in the aggregate for the period of active marital life. In other words, unless too high a rate has been set, the several pregnancies of the average woman involve about the same risk as an attack of typhoid.

Prompt attention to the perineum has greatly reduced invalidism and, thus indirectly, mortality, and it has increased the usefulness of women and the general economic welfare of the family. Without overlooking the fact that cervical laceration is even less preventable than that of the perineum, nor disregarding the inevitable difficulties of diagnosis and the dangers of routine interference from drawing too close an analogy between the two traumatisms, we cannot refrain from suggesting that the subject of cervical laceration is a vital issue, sociologic as well as surgical, and that its importance should not be hidden by too firm a belief in the availability of late methods of cure of existing and prophylaxis of threatened lesions.

Abstracts.

Several subscribers have said that they considered the Department of Abstracts the most valuable part of the Journal. While we feel that original articles are those that give tone to any magazine, it is obvious that articles subjected to a double process of sifting and with all literary chaff and non-essentials removed, are likely to be of very great value. So far as practical, abstracts requiring it, are illustrated, but it is a great mistake to attach too much importance to pictures. At one period, we were very much impressed with collective abstracts, but the delay in accumulating material and the different view-points and methods of treatment of a subject by different authors, render it very difficult to prepare such abstracts in a way to do justice to each author. Again, recur-

rence to a subject as it is found in medical literature serves better to refresh the memory and to furnish new thoughts to readers. It is also difficult to plan space and labor so as to cover any one topic at one time. As several times stated, we would appreciate the co-operation of the local profession in making abstracts, not so much to save our own time, for the amount of Abstract matter for which there is space is well within the needs of reading for private professional purposes, but to secure broadness of view, better judgment as to matters outside our own special interest, and because the work of abstracting is good training in itself. We particularly need help in reading Scandinavian, Italian and one very excellent Greek journal. The last can be read by anyone conversant with ancient Greek, and would be well worth the trouble to some young man who does not wish to let his education in classics slip away from him. The task is not so much difficult as slow.

Twilight Sleep.

Freed from ethical and sentimental complications, the problem of Twilight Sleep is reduced to the following: Can morphine or one of its modifications, plus one or more drugs for "crossed action," produce adequate anaesthesia for a condition fairly comparable with regard to pain and shock, to a fracture, dislocation, forced dilatation of a passage, and even some cutting operations? In the literal, immediate sense, this question can be answered in the affirmative, but the corollary presents itself, whether dosage can be regulated so as to be safe and efficient, considering that the compensating stimulation of pain is likely to be suddenly removed at any time within wide, extremely variable and unforeseeable limits. It is scarcely necessary to state that this problem includes not only the immediate physiologic action of the drug on the vital centers, but its direct and indirect effect on intrinsic vascular and uterine muscle with reference to haemorrhage, its influence on lactation, etc. Further, we must consider whether the drugs which are absorbed and circulate freely and which easily pass through animal membranes, can be so managed as to prevent their toxic action on the child, either by way of the maternal blood or the milk, remembering that morphine is a drug to which infants are peculiarly susceptible, both quantitatively and qualitatively, and that the newly born infant is always liable to respiratory failure to a degree rarely encountered in the adult except under obvious and crude conditions of disease, poisoning and accident.

These are a priori objections, but they rest on established

empiric facts and physiologic principles. Can practical ingenuity and skill overcome them to such an extent as to render Twilight Sleep generally available?

On The Job.

We apologize for the colloquial expression, but there is much to be said in apology for it. There is a popular notion that professional men are irregular and not very energetic workers, and that the average business man works early and late, ruins his stomach with a hasty lunch and is on the job with scarcely any rest. During the last few years we have had occasion to see many business men, in many lines, and our experience is that there is just about one chance in three of finding anyone on the job at any given time during ordinary working hours; that most of them take from 12 or 12.30 to 2 for lunch; and that, with automobile trips in summer and numerous business trips in winter, the office grind is reduced to about five hours a day on the average. And we find not a few grown men taking a Saturday half holiday the year around without apology. We are even pessimistic enough to believe that the connection between an eight hour day and an 80-cent dollar (in purchasing power) is not entirely a coincidence.

The late Dr. Thomas F. Rochester used to paraphrase Benjamin Franklin's proverb thus: "Keep your office hour and your office hour will keep you." And we want to urge on the younger members of the profession that the keen competition of an over-crowded profession, necessitates close attention to duty rather than emulation of the habits of business men.

Lack of Investment Value of Insurance. The Med. World, Nov., cites a case in which \$6,135 was paid for life insurance of \$5,000 in 15 years, the surrender value being \$5,683, a loss of \$452 and interest which, at 4% in the bank, would have been \$1,840. The "dividends" came to \$683.46 instead of \$1,500 as estimated in advance. We have had a somewhat similar experience, the surrender value being a trifle more than the sum of the premiums but representing a loss of about \$1,400, as compared with compound bank interest at 4%. We understand that this is the usual practical experience. We do not in any way underestimate the value of life insurance, especially for a young man without capital. But it should also be understood that \$1,000 in a sound savings bank, in the name of the beneficiary, or one's estate, is exactly as good insurance as \$1,000 payable on death by the average company.

BOOK REVIEWS

Books mentioned may be inspected at and ordered through this office. So far as possible, books received in any month will be reviewed in the issue of the second month following.

La Localisation des Corps Etrangers avec le Repereur Marion-danion. Dr. Marion, Paris. This is an illustrated pamphlet.

In brief, the method consists in radiography from two stations accurately located by a holding apparatus. A compass-like apparatus, so to speak, sights the foreign body from the same stations and is then applied to the surface of the patient so as to point the way for exploration.

Diseases of the Skin and the Eruptive Fevers. By Jay Frank Schamberg, M. D., Professor of Dermatology and Infectious Diseases in the Philadelphia Polyclinic and College for Graduates in Medicine. Third edition, revised. Octavo of 585 pages, 248 illustrations. Philadelphia and London: W. B. Saunders Company, 1915. Cloth, \$3.00 net.

Having reviewed previous editions, it is only necessary to say that this work is standard and of the highest order of merit, and that it has been brought down to date. It is a work intermediate between brief compends and large atlases, in other words, of the scope best adapted to practical use.

Emergency Surgery. John W. Sluss, A. M., M. D., Indianapolis. Published by P. Blakiston's Son & Co., Philadelphia. Limp leather, 832 pages, 685 illustrations, some in color. \$4.00.

This is a systematically arranged, compact book, uniform with others of the series. The third edition is so thoroughly up to date as to include the experience of the current year in the European War, with illustrations. It is a logical part of the surgeon's equipment for preparedness in both civil and military practice and is well adapted to the needs of the general practitioner at times called to operate with little time for preparation.

Diseases of the Nose and Throat. By Algernon Coolidge, M. D., Professor of Laryngology in the Harvard Medical School. 12mo of 360 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1915. Cloth, \$1.50 net.

This is an admirable book of moderate pretensions to completeness and, indeed, containing more real material than many much larger works. The chapter on the tonsillar ring is especially valuable, giving a conception of the anatomic features and practical problems of this area which will be new to many.

What to Eat and Why. By G. Carroll Smith, M. D., of Boston, Mass. Second edition, thoroughly revised. Octavo of 377 pages. Philadelphia and London: W. B. Saunders Company, 1915. Cloth, \$2.50 net.

Aside from brief tables, mostly in connection with certain metabolic diseases and a few receipts (sic) for foods designed especially for invalids, this work is confined to the therapeutics rather than the materia medica of diet. That is to say, diseases especially influenced by diet are considered seriatim, and the indications and contraindications are given for each, in a thorough manner.

A Text-Book of Pathology. By Alfred Stengel, M. D., Professor of Medicine, University of Pennsylvania, and Herbert Fox, M. D., Director of the Pepper Laboratory of Clinical Medicine, University of Pennsylvania. Sixth edition, reset. Octavo of 1045 pages, with 468 text-illustrations, many in colors, and 15 colored plates. Philadelphia and London: W. B. Saunders Company, 1915. Cloth, \$6.00 net, half morocco, \$7.50 net.

One of the pleasant features of the department of Reviews is that it frequently recalls personal associations. Dr. Stengel was a classmate of the writer and his pathology in an earlier edition was and is a vade mecum of practice. But we can speak impartially of the high quality of his book. We have previously mentioned that pathology, as a department of medicine, has been somewhat handicapped by the fact that it has been largely the work of young men who, with developing maturity of judgement and accumulated experience have used it as a stepping stone to medical or surgical practice. Very few have remained pathologists throughout their life, and it has happened that, of these few, still fewer have survived to old age. This fact, however, has its compensation in that pathology has been subjected to a practical point of view which has greatly influenced its adaptation by practitioners with no pretensions to expert pathologic skill. In the present instance, by the association with the original author of an expert, professional pathologist, there has been assured both the revision necessitated by the advance of the science of pathology and

the practical, clinical experience and judgement needed to render the work adaptable to problems in medical practice.

Principles and Practice of Obstetrics. By Joseph B. DeLee, A. M., M. D. Professor of Obstetrics at the Northwestern University Medical School. Second edition, thoroughly revised. Large octavo of 1087 pages, with 938 illustrations, 175 of them in colors. Philadelphia and London: W. B. Saunders Company, 1915. Cloth, \$8.00 net; half morocco, \$9.50 net.

This is a massive work, covering in the most thorough manner the whole subject. The illustrations include not only the expected visualization of obstetric manoeuvres and pathology, but various kinds of records, filled in so as to possess a clinical value, a reproduction of the Semelweis monument and many other points of general interest. So far as medical science and practice can be reduced to print and picture, this work seems to us to be as nearly perfect as is humanly possible.

How to Live. By Irving Fisher, Ph. D., Chairman, Hygiene Reference Board of the Life Extension Institute, Inc., Professor of Political Economy, Yale University. 12mo, Cloth, 345 pages, indexed, illustrated. Price, \$1.00, net; by mail, \$1.12. Funk & Wagnalls Company, Publishers, New York.

The Health-Cure of the Growing Child. By Louis Fischer, M. D., Author of "Health-Care of the Baby," etc. Attending Physician in charge of the Babies' Ward of Sydenham Hospital, and to the Willard Parker and Riverside Hospitals; Former Instructor in Diseases of Children at the New York Post-Graduate Medical School and Hospital, etc. 12mo, Cloth, 354 pages, indexed, illustrated. Price, \$1.25, net; by mail, \$1.37. Funk & Wagnalls Company, Publishers, New York.

These two books may conveniently be reviewed together, though they are independent in authorship and the former is prepared in collaboration with the Hygiene Reference Board of the Life Extension Institute. Both are written by men competent to discuss the subject matter from a technical standpoint. Instead they have chosen to prepare books for the guidance of the laity and have succeeded, not only in reducing technicalities to popular understanding, but in avoiding the errors of statement and the probable errors of conception which most popular health books include. They have also succeeded as few technical students do, in presenting

truths in a readable, popular style, without sacrifice of literary dignity.

Orthopaedic Surgery. Drs. Edward H. Bradford and Robert W. Lovett, Boston. Published by Wm. Wood & Co., New York. 5th edition, 416 pages, 368 illustrations, \$3.25.

More than a quarter of this book is devoted to tuberculous lesions. The various conditions properly considered under orthopaedics are logically treated, with black letter headings for pathology, diagnosis, etc. The liberal use of illustrations elucidates the text, already clear. The work is of the highest order.

Text Book of Nervous Diseases. Charles L. Dana, A. M., M. D., LL.D., New York. Published by Wm. Wood & Co., New York. 8th edition. 632 pages, 262 illustrations. \$4.25.

An interesting review of the scope of neurology is given in the preface to the first edition, no new diseases being listed in the preface to the present edition.

	Peripheral	Spinal	Cord	Brain	Functional	Total
Common and important	31	13	12	10	66	
Rare	56	27	16	11	110	
Totals	87	40	28	21	176	

The "and important" placed after common diseases is itself worth thinking about. Many authors implicitly put the "and important" after rare diseases. At the very beginning, we thus have an indication of the author's wholesome mental attitude. Over 10% of the volume is devoted to general considerations of anatomy, physiology, chemistry, hygiene, diagnosis and a critique of therapeutic measures. This broad preliminary treatment of the subject prepares the student, under- or post-graduate, for the seriatim consideration of special diseases which follows.

Physiologic Chemistry. Albert P. Mathews, Ph. D., Chicago. Published by Wm. Wood & Co., New York. 1040 pages, illustrated, \$4.25.

While, in general, this book follows the standard arrangement, certain points are worth noting. It is replete with tables affording useful information on a great variety of topics. Some of the sub-headings are suggestive, as "Blood—The Circulating Tissue," "The Master Tissue of the Body," meaning that of the nervous system, "The Cryptorhetic Tissues," obviously referring to the internal secretions, though we think

another r is needed. The only unfavorable criticism that we can offer is that the subject of caloric energy deserves a more extended and unified consideration, especially with regard to diet, and in comparison with various non-physiologic caloric problems. Part III, Practical Work and Methods, describes the equipment of a laboratory and many tests that can well be made by those interested in physiologic chemistry from the clinical standpoint. This book is more than a perfunctory treatise. It has the merit, seldom encountered, of giving more information than could be expected, along various lines that are capable of practical utilization.

Diseases of Infants and Children. Henry Dwight Chapin, A. M., M. D., and Godfrey Roger Pisek, M. D., Sc. D., New York. Published by Wm. Wood & Co., New York. 3d edition, 578 pages, 179 cuts and 12 colored plates. \$3.25.

This work has already established itself as standard, in its earlier editions. It is divided into sections relating to the Newly Born, Hygiene of Infancy, Examination of the Sick Child, Infant Feeding, Digestive System (Apparatus please), Infectious Diseases, Respiratory Tract, etc., including the Commoner Surgical Diseases and the consideration of Specialties. The illustrations add greatly to the descriptive power of the book. The work is extensive but not prolix, and is thoroughly practical in the broad sense of establishing practicality on a basis of scientific knowledge.

The Model T Ford Car. Victor W. Page, M. E. Published by the Norman W. Hanley Publishing Co., 132 Nassau Street, New York. 288 pages, 94 illustrations, \$1.00.

This is a thoroughly practical book, not only for the Ford owner who expects to make his own repairs, but for the one who wishes a general understanding of the principles involved and a basis of judgement of the work of mechanics. It enters into greater detail than guides furnished with cars, and is not hampered by the consistent optimism of the salesman, to the effect that nothing will happen. It also posseses a considerable educational value.

The Practitioner's Visiting List for 1916. Four styles: weekly, monthly, perpetual, sixty-patient. Pocket size; substantially bound in leather with flap, pocket, etc.; \$1.25, net. Lea & Febiger, Publishers, Philadelphia and New York.

This Visiting List has proved its convenience by general

use for many years. It needs no introduction except to those beginning practice.

The Clinics of John B. Murphy, M. D., at Mercy Hospital, Chicago. Volume IV., Number V. (October 1915). Octavo of 228 pages, 56 illustrations. Philadelphia and London: W. B. Saunders Company, 1915. Published Bi-Monthly. Price per year: Paper, \$8.00, Cloth, \$12.00.

The October copy of Murphy's Clinics contains besides the usual case histories of bone work, several discussions of interest, such as two carcinoma cases with excision of the submaxillary lymph-nodes, two interesting cases of pain in amputation stumps, a good discussion of a case of pyonephrosis, etc.

CORRESPONDENCE.

This department is intended for the presentation of news and views not coming within the scope of other departments, and particularly to afford opportunity for discussion and criticism of views elsewhere expressed.

327 West 86th Street,
N. Y. City, Nov. 13th, 1915.

Dr. A. L. Benedict,
Editor of the Buffalo Medical Journal,
Buffalo, N. Y.

Dear Dr. Benedict:—

In the last number of the Buffalo Medical Journal we have read the abstract from our previous published Pregnancy Test, which you have published.

Allow us on this occasion to send you a reprint copy of same, besides giving further details regarding the Test and chemicals used.

The "**Iron Reagent**," which is the main Test solution forms a Ferrate, the so-called Eisensaure (Fe O_3) which is a higher oxygen iron compound, than Ferric oxyd (or Hydroxyd. $\text{Fe}_2 \text{O}_3$.) Former compound is found in the spleen, liver and blood according to our research, the addition of glycerine as stated prevents coagulation of the formed colloidal Eisensaure and in connection with strong hydrochloric acid 37-38% c. p. is the main feature of the reagent.

We also wish to remark that the copper-sod. hydrate reagent as first check Test is preferable for several reasons, it is just as accurate as the Bensidinseleno sol. and easier to manipulate and to obtain the chemicals necessary.

Hoping that this information may be welcomed and any further called for we will gladly accommodate.

Yours very respectfully,

Dr. F. KLEIN.

Dr. CHAS. WALKER.

TOPICS OF PUBLIC INTEREST.

Abstracts of Official Rulings Under the New Federal Narcotic Law:

Administration, External and Internal. Liniments, ointments, or other preparations containing drugs not specifically exempt, used for oral, nasal, aural, ocular, rectal, urethral, or vaginal administration are not in such cases used externally and are therefore not exempt from the provisions of this law.

Attendance (personal) Definition of. A physician, dentist, or veterinarian must actually be absent from his office and in personal attendance upon a patient in order to come within the exemption of section 2, paragraph A, of this law.

Charity Organizations. Not supported solely by the state, county or municipality, must register and pay the special tax and keep a record of drugs dispensed or distributed.

Consumers Obtaining Drugs. A consumer, as such, will not be permitted to register under this law and can only obtain a supply of such drugs through a duly registered physician, dentist or veterinarian.

Drugs Dispensed, Record of. A physician or dentist who administers minute quantities of drugs coming within the scope of this law in his office may keep a record of the date when a stock solution is exhausted without keeping a record of the name and address of each patient to whom such drugs are administered. This plan will be allowed, however, only in cases of those physicians and dentists who use minute quantities of these drugs, such as oculists, aurists and other specialists; but where a physician engaged in a general practice otherwise administers such drugs it will be necessary for him to keep a record of the name and address of the patient, of all drugs dispensed, distributed or administered in his office, and of such drugs left with a patient to be taken in his absence. Only such drugs as are personally administered by a physician to a patient when away from his office are exempt from record.

Educational Institutions. Any department of a university, college, or other educational institution using drugs coming within the scope of this law must register with the collector

of internal revenue and pay the special tax. The dean of each department should sign the application for registry and the order blanks used to obtain a supply of these drugs. Such drugs used in a dental infirmary or laboratory should be recorded in a book kept for that purpose.

Exemption From Registration. Under the act, government, state, county and municipal officers, lawfully engaged in purchasing drugs, etc., specified in the act for the various departments of the army and navy, the public health service, and for government, state, territorial, district, county, municipal or insular hospitals or prisons are held to be exempt under section 1 and paragraph (d) of section 2 from registry and special tax to purchase and use of such drugs and to the keeping of records of the same. Any such officers, however, engaged in private practice must register, pay special tax and keep the records, and comply with all the requirements of the law and regulations.

Hospitals and sanatoriums must keep a record of drugs dispensed, distributed or administered therein.

Inventories must be retained by person making same and not sent to the collector of internal revenue or the Treasury Department. Such inventories must be sworn to.

Name in Full—Meaning. A physician may sign prescriptions calling for drugs coming within the scope of this law the same as he would sign a check or legal document, i.e., J. H. Smith, John H. Smith, or John Henry Smith.

Nurses, Status of. Not allowed to register and can only have narcotic drugs in their possession under direction of registered physician. Can only obtain supplies of such drugs upon registered physician's prescription and only when nursing patient of such physician.

Partnerships of Physicians. Where two or more physicians, dentists or veterinary surgeons are in partnership, doing business under a firm name, it is necessary for the firm to be registered, the firm registry number to be indicated in ordering any of the drugs for use in the office practice of the members of the firm, each individual physician, dentist or veterinary surgeon in such partnership should register and pay the special tax under his own name, if also engaged in private practice.

Physicians, Dentists and Veterinarians Practicing in More Than One District. If maintaining an office in more than one internal revenue district must register in each district. If not maintaining more than one office registration in one district permits him to practice in any other district with but one registration.

Prescription Blanks. A physician, dentist or veterinary surgeon can make use of any prescription blank, provided the

same is properly dated and signed and has indicated thereon the physician's address, his registry number, and the name and address of the person for whom such prescription is written. The government does not furnish a form upon which prescriptions may be written and the special order form can not be used for this purpose.

Prescriptions, Partial Filling of. Original prescriptions only can be lawfully filled by druggists, and the partial filling of such prescriptions, from time to time, where large quantities of drugs have been prescribed will, under no circumstances, be permitted.

Refilling Prescriptions. Only original prescriptions can be filled by druggists and apothecaries and can not be refilled without violating this law.

Registration, Who Eligible For. The following persons legitimately engaged in the practice of their profession and dealers allowed by the state laws to handle narcotic drugs are eligible to registry under this law: Persons engaged in the practice of medicine and surgery, persons engaged in the practice of dentistry, persons engaged in the practice of veterinary medicine and surgery, persons engaged in the importation and sale of drugs, persons engaged in the manufacture and sale of drugs at wholesale, persons engaged in the manufacture and sale of drugs at retail.

An osteopath, therefore, or other person heretofore administering these drugs, if not classed as a physician in the state in which he resides, would not be permitted to register under this law.

Special Tax Stamps. Must be posted in a conspicuous place by every person registering under this law.

DAVID A. GATES,

Acting Commissioner of Internal Revenue.

(From California State Journal of Medicine.)

Scientific Glass, for microscopic lenses, has been produced by the Spencer Lens Co. of Buffalo, for the first time in America. This is one phase of the issue of industrial American independence, stimulated by the war and alluded to editorially last year. Glass of sufficient quality for spectacles, was made in America for the first time six months ago.

A National Campaign to Reduce Infant Mortality was instituted by the American Association for the Study and Prevention of Infant Mortality, at Philadelphia, November 12. The week March 4-11, has been set for popular instruction, and national legislation regarding child labor is advocated. It should be noted that while certain philanthropic campaigns require elaborate means of acquiring knowledge, one of this

nature depends mainly on the inculcation and practical execution of principles already well known professionally and even by the intelligent laity.

Fraudulent Neosalvarsan. Several shipments of worthless imitation drug products have been seized by the officials of the U. S. Dept. of Agriculture, including a preparation labeled Neosalvarsan, which proved to consist of a solution of sodium chlorid colored with a coal tar dye.

Sterilization has been enforced in Wisconsin, 24 patients in the Institution for the Feeble Minded at Chippewa Falls, having been castrated.

A County Hospital for Tuberculous Patients was voted by Niagara County, N. Y., by a plurality of nearly 8,000. Jefferson, Rockland, Steuben and Herkimer Counties also voted for similar institutions.

The Tonawanda City Hospital for the year ended September 30, showed a saving of over \$1,000 as compared with gross receipts. For the fiscal year ended September 30, 1914, the saving was \$275. The per capita cost has been reduced from 68 to 50 cents for food and from \$2.43 to \$2.18 total.

Arnold Gregory Memorial Hospital of Albion. The corner stone was laid, without ceremony, November 12.

New Vehicle Ordinance for Buffalo. All vehicles passing schools and churches at dismissal time must reduce speed to for similar institutions. Niagara Co. will spend about \$100,000 for this purpose.

College Merger. Steps have been taken to merge the Medico-Chirurgical Medical College of Philadelphia, with the Medical Department of the University of Pennsylvania.

Elmira is having a mild typhoid epidemic, fifteen cases having developed on one milk dealer's route.

Bequests to Medical Charities. By the will of Mrs. Josephine L. Goodyear of Buffalo, \$20,000 is left for a Convalescent Home, named for the donor, and \$5,000 each to the Buffalo Homoeopathic Hospital and the Children's Hospital. Most commendable is the bequest of sums of \$2,000 to \$10,000 to domestic employees.

Deliberately Allowing a Defective Child to Die, is charged

against and proudly admitted by Dr. H. J. Haiselden of Chicago. Much publicity has been given the case and a stranger, learning of the facts, attempted to kidnap the child to have treatment instituted with the hope of saving the life. The parents consented to the abandonment of the child to its fate. Lack of one ear, deformity of the other, absent or undeveloped cranial nerves, "absence of neck," and deformity of chest and of nose, are stated to be the reasons for allowing the child to die. It is also stated that the brain was slightly subnormal, though press despatches do not say whether this diagnosis was made ante or post mortem. Occlusion of the bowel is also hinted at. It is obvious that the viability and mental and physical potentialities of the child, aside from purely aesthetic drawbacks, cannot be determined except by careful and very direct examination. It is pretty well recognized that an absolutely hopeless case, whether of the new born or at any time during life, may be allowed to die, provided that operative or other measures of relief produce discomfort, or involve immediate increase of danger of death, and do not hold out hopes of more than very transient prolongation of life. It is equally well recognized that the mere undesirability of life, whether from the standpoint of the sociologist, physician, family or the patient himself, so far as it can be determined, does not justify neglect of all means for preserving and prolonging life.

The coroner's jury, consisting of Drs. John F. Golden, Arthur Rankin, D. Howland Chislett, D. A. K. Steele, Henry F. Lewis and Ludwig Hektoen, held that the doctor was justified in allowing the baby to die. Dr. Haiselden stated that he had consulted 15 physicians, 14 of whom concurred in his opinion. Dr. Dill Roberts, City Health Commissioner, testified that there was no evidence that the child would be mentally defective, and there seemed to be doubt of total blindness and deafness. Dr. Roberts also held that several of the physical defects could have been remedied by plastic operations. The acquittal, therefore, is notable not because it was based on the non-viability of the infant, but as upholding the moral and ethical right of a physician and surgeon to refuse to perform an operation not sanctioned by his conscience. The verdict explicitly recommends consultation in similar cases, but finds that the right of consultation was not denied the parents. Indeed, it appears that the recommendation was more than complied with. It will be interesting to note whether this verdict will be used as a precedent in future cases, and whether it will lead to an extension of application in the direction of euthanasia in hopeless cases.

Child Suicide. A case in a boy of 15, is reported from near

Corning. The boy was compelled to support himself by working on a farm, and he had been notified that he would be discharged. He bought, or somehow secured, a revolver, asked his mistress for a cartridge with which to shoot himself, and she gave him one, saying that it would be a good thing—in joke of course. How any sane adult could imagine that a boy of 15, at any rate without careful supervision, should be allowed to have a revolver in his possession is one question that presents itself. How it could be assumed that suicide would be regarded as a joke by a homeless child, presumably already depressed by the premature assumption of the responsibilities of self-support and with lack of employment at this season staring him in the face, is another question that demands an answer. Sentiment aside, if the boy was mentally, morally or physically defective, there is an abundance of places provided for his care. If he was anywhere near normal in these respects, he was worth his support and schooling, to almost any farmer and to many other persons, and it should have been an easy matter to have assured him on this point and to have found him a place. Here is a good opportunity to impress the fact that plain kindness of heart has a strong influence on such technical matters as mortality rates, disease incidence and industrial self-sufficiency.

Subspecialism. Among 30 physicians carrying professional cards in the Texas Medical Journal, 2 announce that their practice is limited to PELLAGRA.

The Sherley Amendment to the U. S. Food and Drugs Act has been held constitutional by the U. S. Court for the eastern district of Pennsylvania. This amendment forbids placing on the label false and fraudulent statements regarding curative or therapeutic effects. It occurs to us that this ruling requires further qualification. There are many drugs concerning which there is marked difference of opinion, for example cactus. A very small minority of the medical profession holds, in perfect faith, quite a number of drugs which are usually regarded as impotent. Again, some very simple remedy, not necessarily a drug, may indirectly produce a very favorable action tending to support the heart or to affect some other vital apparatus. Occasionally, apparently incontrovertible pharmacologic evidence upsets notions long and generally held. For instance, suppose a physician dispenses a package of strychnine tablets, marked with the name of the drug, the amount in each tablet, the usual directions as to taking, and adds "Heart Tonic;" or suppose he similarly marks a package of calomel tablets "To promote flow of bile." What would be his legal status, in case some enemy or some newly conceived

not to depart from the field of commercialism, will this amendment not be susceptible of abuse in regard to firms issuing, to supply an actual professional demand, certain drugs that are not in scientific favor but which practitioners, in greater or less number, consider efficient in certain conditions?

OUR CONTEMPORARIES.

Beginning with the January, 1916, number, the Journal of Cutaneous Diseases including Syphilis, will be published for the American Dermatological Association by W. M. Leonard of Boston. Each number will contain 80 pages and as far as possible be of interest and value to the general practitioner as well as to the dermatologist. George M. McKee, M. D., editor.

The Medical Summary thinks that propaganda should be issued against THE USELESS DOG, as against flies, mosquitoes and other nuisances. The farm dog easily earns his keep in fetching cows for milking, driving sheep, guarding property and catching woodchucks, not to mention his occasional work on a treadmill for churning, etc. In the city, the case is different, but there is something to be said on the other side. For example, there is a 7-lb. pet, too small to be of any serious use, although he has the fearlessness and spirit of a St. Bernard. Burglars and tramps, as our contemporary states, are not a frequent danger, and such a dog would be powerless to inflict damage on them, but it is worth a few bones and crumbs to feel confident that, day or night, his keener senses will notify of any intruder or of any unusual event of any kind. Probably he does not realize that those bones and crumbs depend pretty directly on attention to the telephone and door bell but, solely of his own mental workings, he has grasped the fact that those signals must be answered, and that persons who enter without ringing must receive attention. By relaying such signals to less acute ears of two-legged persons, he already has a considerable credit balance beyond the modest demands of his stomach. On the basis of unsolicited, bona fide offers, he represents a 400% gain in investment value, though we hasten to add that it would be extremely unwise to take advantage of these offers. But how about the psychologic value of the dog? Is it nothing that he gives pleasure and companionship, stimulates affection and thoughtfulness? Generally speaking, does not the boy or girl, brought up with such companionship, make a better man or woman? Doesn't the dog prevent insanity and suicide among those doomed to solitary occupations and especially to lives

campaign of professional education brought him to trial? Or, without actual human companionship? If we adhere to a strict standard of utility, would we not send to the pound a good many human beings? For that matter, few of us are actually useful for more than a quarter of the time, and the majority seem mainly interested in being useful for the sake of enjoying the useless three-quarters of their time.

SEVENTY YEARS AGO.

Extracts from the Buffalo Medical Journal of 1845

Twins at Different Stages of Development. Dr. H. N. Loomis of Buffalo reports dead twin boys, at 8th month in a primipara. One was of corresponding development, the other of that of a foetus of the fifth month.

Removal of 17 Inches of Small Intestine and Recovery. Dr. Brigham, Superintendent of the Utica State Lunatic Asylum reports in Am. Jour. of Med. Sci., self-mutilation by a woman. Supposing the case to be necessarily fatal, Dr. Buttolph, the assistant physician, simply returned the end of the gut, the other end having spontaneously re-entered the abdomen, and stitched the abdominal wound. Complete recovery occurred, with spontaneous passage of bowels on 33d day.

Phrenology. Notice of pamphlet, containing lecture by Dr. Hamilton against Phrenology.

First Intention. Dr. F. H. Hamilton, in a series of articles on "An" European Tour, notes that Roux occasionally experiments in union by first intention after amputations, with some successes, "but I should do him a great injustice to say that he has yet adopted this English principle as an established practice."

Dextrine Bandages for Simple Fractures. Dr. Hamilton observes that Velpeau uses this for all simple fractures and questions whether it has any advantages over starch, used by Suetin. He condemns both.

Lithotomy. Dr. Alden S. Sprague reports a case in a French boy aged 11, who had been given much Burgundy in early childhood. Perineal section on a staff in the bladder was employed. Owing to the struggles of the patient, the rectum was wounded. The stone was reddish brown, 1x1½ inch. No ligatures were needed. The bladder was rinsed with warm

milk and water and drained for two days. Urine passed partially by urethra on the 10th day and completely after the 15th. Liquid faeces were also passed by urethra for a short time. Healing complete on 22d day.

Cancer a Local Affection. Dr. Hamilton states that Velpeau, Roux, Blandin, Gerdy and Lisfranc regard cancer as originally local and that they remove many cases of scirrhus and open cancer which American surgeons would hesitate to touch.

Anaplasty. Dr. F. H. Hamilton discusses general principles of plastic operations and reports successful cases of blephoroplasty, cheiroplasty and rhinoplasty.

Statistics of Medical Graduation and License for New York State. College of Physicians and Surgeons, 37; University of New York, 92; Albany Medical College, 16; Geneva Medical College, 46; total 191. Seventeen county societies reported only 8 licentiates.

Typhoid Epidemic. Review of report by Dr. Austin Flint (1st) in Am. Jour. Med. Sci. In September, 1843, a young man from Massachusetts stopped at a tavern in N. Boston, Erie County, N. Y. He had symptoms of typhoid and died. 28 cases, 10 fatal, resulted in a population of 43. An autopsy with typic findings is included in the report. The fever was identified with the typhoid of New England and the reviewer, G. N. B. (Burwell) remarks that he has had 7 or 8 undoubted cases in 16 months. The paucity of literature is deplored and it is distinctly recognized that purgatives should not be used except at the commencement of the disease, that "an improper bleeding, emetic or a dose of physic even, ill-timed may cost the patient his life," also that the fever must run its course.

Report of the Wounded at the Battle of Okee-Chobee, Fla., 25th December, 1839. A full report of wounds is contributed by Surgeon R. C. Wood of the Buffalo Barracks. Reference to this may be of interest to military surgeons.

Consumption Considered Contagious by all the people of the south of Italy and by many respectable physicians. *ibid.*

Pellagra. Dr. F. H. Hamilton, in his Notes of An European Tour, acknowledges the courtesy of Dr. Capelli of Milan in demonstrating cases. The symptomatology is graphically stated, the prognosis is almost hopeless, the causes are consid-

ered the hot, damp climate, poverty and especially the use of Indian corn made into a sour bread, and the use of sour wines. The treatment is plain, nutritious diet and baths, the last being especially emphasized.

SOCIETY MEETINGS

Brief reports and announcements of meetings of societies of Western New York, and those of general scope, are requested from Secretaries. Copy should be on hand the fifteenth of the month. Full transactions will be published at cost of composition.

DOCTOR: Is your Society properly represented here? If not, please bring our standing announcement to the attention of the members.

The American College of Surgeons, at its recent meeting in Boston, admitted 450 additional fellows. The officers were all re-elected. The endowment fund, by the addition of about \$100,000, is close to half a million.

The regular monthly meeting of the **Elmira Academy of Medicine** was held November 3. Scientific program: Ectopic Gestation, Charles A. Bentz; Surgical Treatment of Ectopic Gestation, Ross G. Loop. A collation was served.

The American Society for the Study of Alcohol and Other Narcotics will hold its 45th annual meeting at Washington, D. C., December 15 and 16. This was the first society of medical men in the world to take up the scientific study of alcohol and other narcotics. Its papers and transactions have been published in the *Journal of Inebriety*, and comprise the first scientific literature on this subject. 31 papers will be read at this meeting by specialists and distinguished medical and scientific men. These studies will be confined exclusively to the effects of alcohol and drugs on the body and brain, based on clinical experience and laboratory observations.

The public are cordially invited to be present. Programs can be had by addressing the Secretary, Dr. T. D. Crothers, Hartford, Conn.

At the 46th annual meeting of the **American Medical Editors Association**, New York, October 18 and 19, Dr. Edw. C. Register of Charlotte, N. C., was elected president; Dr. W. A. Jones of Minneapolis, vice-president; Dr. G. M. Piersol of Philadelphia, vice-president; Dr. J. MacDonald, Jr., of New York, secretary-treasurer.

At the annual meeting of the **Detroit Academy of Medicine**, held October 12, the following officers were elected: President, Dr. Charles D. Aaron; Vice-president, Dr. Guy Connor; Secretary and Treasurer, Dr. Alpheus F. Jennings.

The annual meeting of the **Ontario County Medical Society** was held at Canandaigua October 19. The following officers were elected for the ensuing year: B. T. McDowell, Bristol Center, president; C. W. Selover, Stanley, vice-president; D. A. Eiseline, Shortsville, secretary and treasurer. The following papers were read: Cancer Prophylaxis, Donald Guthrie, M. D., Sayre, Pa.; Fracture of the Skull, with report of a case, Charles W. Webb, M. D., Ithaca.

The National Society of Keep Wells has been organized, with Mrs. Arthur MacDonald of Washington, President; Mrs. Mary Stevens Beall, Secretary, and Miss Dorothy Dent, Treasurer. Semi-monthly meetings are held and popular lectures are given. It is intended that chapters should be formed in various cities of the country with the idea of furthering a knowledge of personal and domestic hygiene and prophylaxis of disease among women. We take pleasure in endorsing this movement and trust that such local branches may be established in our territory, and that physicians will call the attention of their wives to this movement.

The Medical Society of the County of Niagara, at its November meeting, elected the following officers: President, H. A. Wilmont, Middleport; Vice-president, John C. Plain, Ransomville; Secretary, L. R. Hurlburt, Lockport; Treasurer, Wm. A. Scott, Niagara Falls.

The Rochester Academy of Medicine met under the auspices of Section III, November 10. Dr. David B. Jewett gave a paper on Diagnostic Problems in Abdominal Diseases of Children; Dr. Joseph Roby on A Phase of Gastro-Enteritis in Children.

The Buffalo Academy of Medicine has held the following meetings since our last report: October 27, Pathologic Section, Reactions and Results of Treatment in Cerebro-spinal Syphilis, George Draper of New York, discussion opened by James Wright Putnam.

November 3, Surgical Section, Exhibition of Cases illustrating the Radical Treatment of Pott's Paraplegia by the Albee Bone Graft, Prescott Le Breton; Research Work in the Surgery of the Duodenum, with Specimens, Edgar R. McGuire, X-ray slides by E. C. Koenig.

November 10, Medical Section, Ferments, N. R. Kavinoky; Some Unusual Features of Empyema, John H. Pryor; Formation of Gas in Stomach, A. L. Benedict.

November 17, Section of Obstetrics and Gynaecology, Symposium on Infant Welfare; What the Health Department is Doing, Dr. Arthur C. Schaefer; Health Department Obstetrical Clinic, Dr. Irving S. Potter; University of Buffalo Obstetrical Clinics, Dr. E. A. D. Clarke; Prevention of Infant Blindness, Dr. Park Lewis; Babies Milk Dispensaries History, Dr. N. G. Russell; Present Work, Dr. Carl G. Leo-Wolf.

PERSONAL.

Announcement of removal, travel, and other matters of interest are requested. Please report errors in the listing of any physician in the State and other directories, that we may co-operate with the State Society in securing a correct list.

Dr. Edgar R. McGuire of Buffalo, visited Rochester, Minn., early in November, returning intact.

Dr. John Hamilton of Elmira spent last week visiting the clinics in Buffalo.

Dr. E. H. Noble was operated upon the first of the month.

Dr. J. L. Kinner will read a paper on Focal Infection at the Elmira Clinical Society on November 23, 1915.

The report of the Buffalo Ward at the American Ambulance at Paris published in our November issue, was secured through the kindness of Dr. Charles VanBergen of Buffalo.

Dr. Thomas P. C. Barnard of North Tonawanda recently presented a handsome silver emblem to the Tonawanda Lodge No. 247 F. & A. M. He joined this lodge 21 years ago but is now a member of Sutherland Lodge of North Tonawanda.

Dr. Arthur S. Bugbee of Medina was married to Miss Mary Helen Wilds October 12.

Dr. Robert A. Toms of Kenmore has been elected Supervisor of the town of Tonawanda.

Dr. Carlton Wertz, who has been an interne at the Deaconess Hospital, has located at 1440 East Ferry Street, formerly occupied by Dr. C. P. Eller, who has moved from Buffalo.

Dr. A. J. Harris of Buffalo announces his removal to 442 East Utica Street.

Dr. S. Y. Howell of Buffalo has recently returned from a trip to Chicago and Rochester, Minn.

Dr. Irving M. Snow of Buffalo has moved to 737 Delaware Avenue.

Dr. W. D. Preston of Attica has bought and will occupy the residence of Wm. D. Reynolds, on Main Street.

Dr. Evelyn F. Frisbie has been elected president of the New Mexico Medical Society.

Dr. Charles J. Barone of Buffalo has been appointed to the resident staff of the Elizabeth Steel Magee Hospital of Pittsburgh.

Dr. Jacob Miller of Buffalo returned the middle of November from New York, where he took a course in the Polyclinic.

Dr. Wm. H. Heath of Buffalo has accepted a position as sanitarian for Siam. He will leave in January to assume his new duties to which his former service in the U. S. Marine Hospital Service (now Public Health Service)) and his long connection with the Buffalo Department of Health have so well fitted him.

ABSTRACTS.

Have you ever felt that this department of the BUFFALO MEDICAL JOURNAL was lacking in abstracts of your specialty, or that such as were published lacked the expert judgement which you yourself could have exercised in selection and preparation? If not, you are more charitable than the editor has been to himself. If so, will you assist in abstracting from a few journals, and thus make this department more representative and more valuable? Incidentally, there are few forms of study more helpful to the worker than this.

We have constantly in mind the fear of selecting for Abstracts articles that may interest the reviewer but not the general reader, and also of failing to preserve the happy mean between too great length and so great brevity as to omit the gist of the article. With regard to the former, we are pleased to note that the Medical Record has considered worthy of editorial treatment, two of the subjects which we have re-

cently published in abstract form: Achalasia of the Cardia and Determination of Plasma and Blood Volumes. To prevent misunderstanding, we wish to state explicitly that the Record could not even have had attention called to these subjects from our Abstracts, owing to date of publication. The Nashville Journal of Medicine and Surgery also reprints with credit, our Abstracts upon Marion's Advocacy of Nephropexy, with comments, as well as one on the Treatment of Tuberculosis by Compression, without comments. While we appreciate the courtesy, and recognise the propriety of assigning responsibility in the former case, since editorial comment was added, we do not ask credit for any news item or abstract representing nothing but literary drudgery, even if reprinted from our original wording. For example, we abstracted Marion's article from a translation without credit to the intermediate source, so on the ground that the mutual exchange of information is the reason for exchange of journals, although in any case in which we have simply clipped from an exchange, our rule is to give due credit even for the labor saved.

Relapsing Fever. 5 cases have been reported by Meader, all but one occurring in a camping party on Bear Creek, Colorado. The camp had frequently been visited by gypsies. Col. Med. October.

Alcohol as an Etiologic Factor in Insanity. The Institution Quarterly, representing the various activities of the State of Illinois, states that of 460 consecutive admissions to one male reception ward, 97 were alcoholic psychoses—21%.

Methods of Estimating Functional Efficiency of Liver, C. B. Van Zant, Denver, Col. Med., Nov.

1. Tests based on bile-forming function. (a) Bile is found in urine in all cases of jaundice due to hepatic disease (and obstruction not involving liver. Ed.), often when jaundice is not present, and in rapid haemolysis. Malaria, chloroform and ether poisoning, and organic diseases of liver, as acute yellow atrophy. Brule affirms that when single biliary constituents and not bile as a whole are eliminated in the urine, there must be organic lesion or disease of the liver cells.

1. (b). Hypercholesterinaemia. Henes believes that gall stones originate in the gall bladder when cholesterin exceeds 2.8 : 1000 in the blood. Such an excess may exist in fever without time for their formation, but otherwise the excess of cholesterin differentiates gall stones or gall bladder disease from duodenal and gastric ulcer and cancer, appendicitis, intestinal adhesions, etc.

1. (c). Phenoltetrachlorophthalein test. (Rowntree & Whipple) Normally, 400 m. g. injected into a vein is excreted in

the bile and appears in the faeces within 48 hours, none appearing in the urine. Less than 30% of the dose administered, in the faeces or any appearing in the urine, indicates disease of the liver. Injuries, chloroform, phosphorus or other poisons, hepatic carcinoma and syphilis, obstructive jaundice are among the particular diagnostic indications.

1. (d). Urobilin and Urobilinogen. (Wilbur and Addis, Steiger, Labre, Chesney, Marshall, Rowntree, von Jaksch) Normally all urobilin formed in the intestine is destroyed or changed into bile pigment. In almost any disturbance of the liver, except Pick's diseases (frosted liver) and chronic passive hyperaemia, one or both of these substances are found in the urine.

2. Tests based on urea-forming function. The normal liver changes ammonium compounds and amino-acids into urea, at least to a large extent. Thus, a reduction of urea in the blood and urine and an excess of amino-acids is theoretically a basis for estimating liver function. MacAdam holds that both absolute increase and increase relative to total N of the urine, are significant. Steiger believes that the determination of the amino acid output in the urine is the only practical method. Chesney, Rowntree and Marshall corroborate this view. Opie and Alford, Krehl and Landois corroborate the old view that crystals of leucin and tyrosin in the urine, along with jaundice, indicate disintegration of liver tissue as in acute yellow atrophy, late chloroform and phosphorus poisoning, certain toxæmias of pregnancy. Labbé and Bonchage consider that an excess of amino-acids and ammonia in the urine in diabetes allows us to incriminate the liver. Falk and Saxl hold that the diminution of urea and excess of ammonia and amino-acids in the urine, do not occur in leucocythaemia, amyloid degeneration, sarcoma nor chronic passive congestion; that these tests often occur in cancer and phosphorus poisoning; occasionally in catarrhal jaundice, gall stones, fatty degeneration and syphilis; very constantly and markedly in cirrhosis.

3. Tests based on sugar-forming function. (a) Strauss laevulose test. 100 grams of laevulose (It has been suggested that on account of the expense of c. p. laevulose, honey may be used. Ed.) ingested at once, should not produce laevulosuria. If it does occur, hepatic failure is suggested, the test being especially valuable in cirrhosis and chronic passive congestion.

3. (b) Bauer galactose test. 40 grams administered fasting in the morning should not produce galactosuria (samples being collected every 2 hours.) The test is constant in jaundice, frequent in gall stones, cirrhosis, cancer, etc. Wagner and Hatiegan consider it more dependable than the laevulose test.

4. Tests based on fibrinogen-forming function. The reduc-

tion of coagulation, as by the Whipple method, is noted in practically all severe hepatic diseases.

5. Tests based on adequacy of anti-thrombin-forming function. Denny and Minot have established the general principle but the test is not yet on a practical basis.

6. Tests based on ferment-forming or ferment-inhibiting function. (a) Ghedini's diastase test. Normal livers add diastase and, therefore maltose, to the blood. In hepatic disorders, the amount is lessened or nil.

6. (b) Whipple's lipase test. (inhibition) Lipase is increased 6-8 times in the blood in nearly all cases of eclampsia, liver injuries, chloroform intoxication, infections, acute yellow atrophy, cholangitis and liver abscess. In cirrhosis and obstructive jaundice, the test is not so significant.

6. (c). Haemoconiasis test. (Jeannin and Levant) The small refractive bodies normally seen in a drop of fresh blood are much increased after the ingestion of fat, 50 grams of butter being used, if the liver is normal. In hepatic disease, this increase does not occur and in serious disturbances as acute yellow atrophy the haemoconiae are reduced to 15-20 per drop. The authors cited have found this test especially useful in differentiating between mild and severe forms of jaundice in pregnancy. (Note: We would conjecture that this test should not be classified under this general heading, but that it depends upon the absorption of fats, under the influence of the bile salts. Ed).

6. (d). Fibrinolytic ferment test. (Goodpasture) A fibrin-dissolving ferment seems to be secreted only in atrophic cirrhosis. Blood drawn ante- or post-mortem, clots normally (but see 4 and 5) but the clot completely dissolves in 4-5 hours.

7. Tests based on the iron-storing function of the liver have not been devised, except as one may so consider the clinical observation of certain cases of pernicious anaemia.

8. Tests based on the protective function of the liver, in detoxicating certain nitrogenous substances, have not been devised. Absence of the detoxicating function may be the state in eclampsia, uraemia and possibly in cystinuria and alkaptonuria.

9. Acidosis test. There is some ground for the belief that the liver is the organ in which the acetone bodies are formed. The formation and appearance of these bodies in the blood and urine varies directly with liver function, not inversely as for most of the other tests.

Note. While this article may prove somewhat disappointing to those considering the subject merely as a means of securing diagnostic tests, we have given an unusually full abstract, as it deals collectively and systematically not only with actual tests, but with the general principles on which all such

tests are to be judged and by means of which newer tests are to be developed. We have never seen so broad a discussion of these principles, expressed in simple terms.

Ethyl Chlorid as a General Anaesthetic. Jacques Carles and André Charrier, *Progres Med.*, Oct., advise using several C.C. at the beginning, then $\frac{1}{2}$ C. C. every three or four minutes. As contraction of the jaws frequently occurs and the nasal passages may be inadequate, the mouth gag should always be available. The inflammability of ethyl chlorid and the occasional failure of muscular relaxation are disadvantages. For long and delicate abdominal operations, chloroform or ether is advised.

Acid-Fast Bacilli in Faeces of Patients Suffering from Joint Disease. Henry Keller and A. J. Moravek, *N. Y., Med. Rec.*, Nov. 20. By animal experiments, the authors corroborate the contention of Rosenburger in 1907 that acid-fast bacilli in the faeces are tubercle bacilli and not smegma bacilli or other comparatively harmless germs. The smegma bacillus is conspicuous by its absence, in the faeces. Shortly before death in guinea pigs and during states of depression in patients, tubercle bacilli tend to disappear from the faeces. In 42 cases of active tuberculosis of the joints, they found tubercle bacilli in the faeces in 30 and in the urine in 2. Of 6 cured cases, none showed bacilli in either excretion. In 18 control cases, none showed bacilli in either. Of 9 originally doubtful cases, 1 showed tubercle bacilli in the faeces but not in the urine. This case proved to be active tuberculous arthritis of the right hip. Of the 8 negative cases, 1 proved to be an ordinary sprain of the knee, 1 a gonorrhoeal arthritis, 3 syphilitic, 2 remain doubtful and 1 has been lost sight of.

Note. Unless further contradictory evidence is adduced, this corroboration of the views of Rosenburger and of M. Solis Cohen and others, deserves wide attention. It justifies the dictum that there is no such thing as a closed tuberculosis unless the process has also become strictly latent and encapsulated. It points out a neglected route of infection and demands the most careful disinfection of the stools—not to mention the urine—of all active tuberculous cases. It adds a detail of great importance in rendering the consumptive or otherwise tuberculous person, cleanly.

Largest Urethral Calculus in the World. Dr. S. E. Earp, editor of the *Indianapolis Medical Journal*, kindly allows us to reproduce the accompanying cuts. The calculus was removed from a woman aged 47, weighs 845½ grains, is 3 inches long, attains a diameter of 1 1-8 inches and a circumference

- of 4 1-8 inches. It is phosphatic and extended into the bladder, causing an ulceration. The case was first reported in the N. Y. Med. Jour., Feb. 2, 1907.



Public Health Service Discovers Cause and Cure of Pellagra. Pellagra Caused by Insufficient Proteid Diet . Pellagra has been increasing alarmingly throughout the United States during the last eight years, and it is estimated that 75,000 cases of the disease will have occurred in the United States in 1915, and of this number at least 7,500 will have died before the end of the year. In many sections only tuberculosis and pneumonia exceed it as a cause of death.

The final epoch-making experiment of the Public Health Service was carried out at the farm of the Mississippi State Penitentiary about eight miles east of Jackson, Miss., and together with the previous work of the Service completes the chain in the prevention and cure of the disease. The work at the Mississippi Farm has been in charge of Surgeon Joseph Goldberger and Assistant Surgeon G. A. Wheeler of the United States Public Health Service. The Farm consists of 3,200 acres in the center of which is the convict camp. The final experiment was undertaken for the purpose of testing the possibility of producing pellagra in healthy human white adult males by a restricted, one-sided, mainly carbo-hydrate (cereal) diet. Of eleven convicts who volunteered for this experiment, six developed a typical dermatitis and mild nervous gastro-intestinal symptoms.

Experts, including Dr. E. H. Galloway, the Secretary of the Mississippi State Board of Health, Dr. Nolan Stewart, formerly Superintendent of the Mississippi State Hospital for the Insane at Jackson, Dr. Marcus Hause, Professor of Dermatology, Medical College of the University of Tennessee, Memphis, Tenn., and Dr. Martin R. Engman, Professor of Dermatology in the Washington Medical School, St. Louis, Mo., declare that the disease which was produced was true pellagra.

Prior to the commencement of these experiments no history could be found of the occurrence of pellagra on the penitentiary farm. On this farm are 75 or 80 convicts. Governor Earl Brewer offered to pardon twelve of the convicts who would volunteer for the experiment. They were assured that they would receive proper care throughout the experiment, and treatment should it be necessary. The diet given was bountiful and more than sufficient to sustain life. It differed from that given the other convicts merely in the absence of meats, milk, eggs, beans, peas, and similar proteid foods. In every other particular the convicts selected for the experiment were treated exactly as were the remaining convicts. They had the same routine work and discipline, the same periods of recreation and the same water to drink. Their quarters were better than those of the other convicts. The diet given them consisted of biscuits, fried mush, grits and brown gravy, syrup,

corn bread, cabbage, sweet potatoes, rice, collards and coffee with sugar. All components of the dietary were of the best quality and were properly cooked. As a preliminary, and to determine if the convicts were afflicted with any other disease, they were kept under observation from February 4th to April 9th, two and a half months, on which date the one-sided diet was begun.

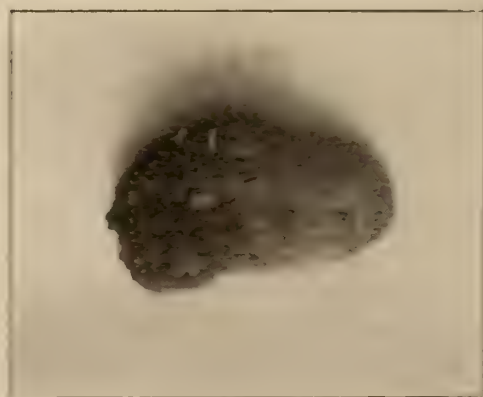
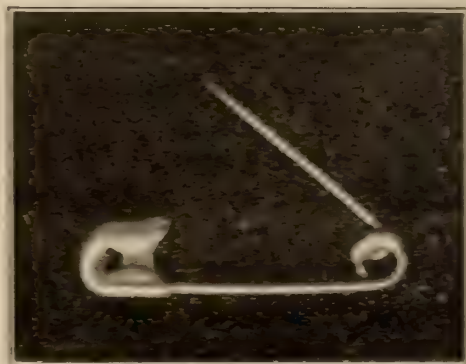
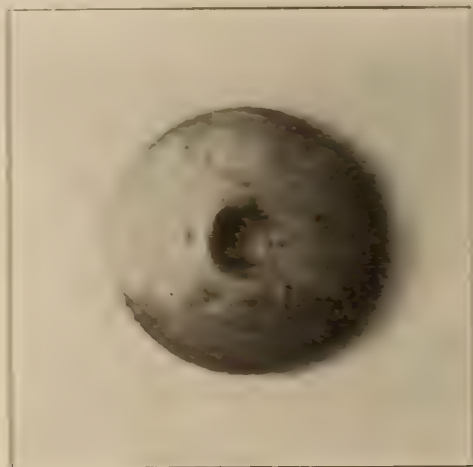
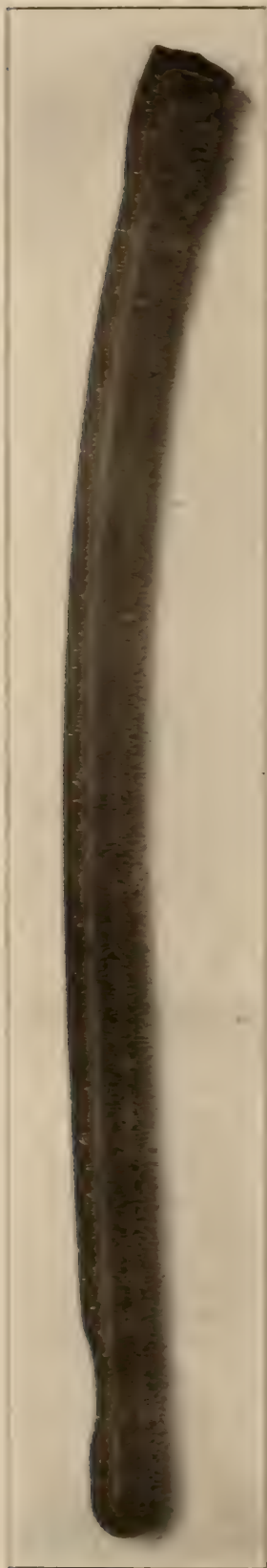
Although the occurrence of nervous symptoms and gastrointestinal disturbances was noted early, it was not until September 12th, or about five months after the beginning of the restricted diet, that the skin symptoms so characteristic of pellagra began to develop. These symptoms are considered as typical, every precaution being taken to make sure that they were not caused by any other disease. The convicts upon whom the experiment was being made, as well as twenty other convicts who were selected as controls, were kept under continuous medical surveillance. No cases of pellagra developed in camp excepting among those men who were on the restricted diet. The experimenters have therefore drawn the conclusion that pellagra has been caused in at least six of the eleven volunteers as a result of the one sided diet on which they subsisted.

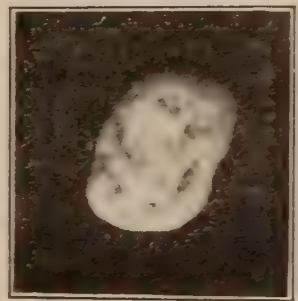
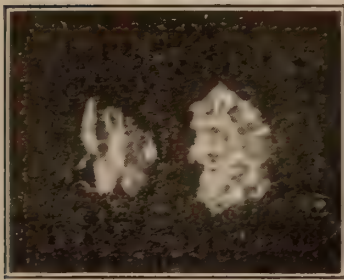
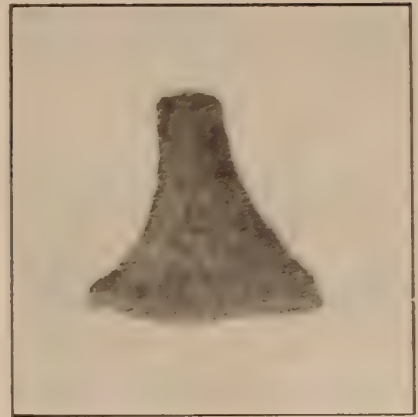
On the basis of this discovery, the States of Mississippi, Louisiana and Florida have laid their propaganda through their respective boards of health for the eradication of the disease.

With reference to the discovery of the cause of Pellagra, we quote from a series of articles on European Travel, by Dr. F. H. Hamilton (Buffalo Medical Journal, Dec. 1845): "The causes of this scourge of Lombardy are, I am convinced and so also I was assured by Dr. Capelli, to be found not only in the low damp soil of the adjacent country and the exposure to a burning sun, but chiefly in the peculiarly unwholesome diet of the peasantry, whose food, exclusively vegetable, is chiefly composed of Indian flour made into a coarse and always acid bread.....which never failed to put my stomach into a fermentation; or Indian flour and chestnut flour stirred into a porridge called 'polenta' and to which the rye porridge of Scotland is not unlike..... The treatment at this hospital (Ospedale Maggiore, Milan) consists mainly in a plain, healthy, nutritious diet and baths." The present editor has, from the beginning of the agitation of the subject of Pellagra in the American medical literature, contended that it was not a specific disease, not even in the sense of being especially connected with maize or a fungus or bacterium developing in it, but that it was a symptom complex of nutritional disturbance. We note with pleasure the confirmation and more accurate demonstration of views long held

by the profession, but the word Discovery does not seem to us appropriate.

Foreign Bodies of the Trachea, Bronchi and Oesophagus.
Robert L. Moorehead, Brooklyn, L. I. Med. Jour., Oct. Space does not allow the details of diagnosis and methods of extraction. The pictures speak for themselves.





Autosensitized Autogenous Vaccines. In the October Clinics Dr. John B. Murphy again calls attention to the value of auto-sensitized vaccines. In order to obtain the best results from vaccines, not only should the micro-organisms come from the patient himself, but this autogenous strain should be cultivated upon the patient's own blood-serum, thus giving an auto-medium. The organisms may now often be recovered from the blood stream itself by the new Rosenau methods of citrating the blood and taking out the red blood corpuscles. If it is absolutely impossible to obtain the special strain of organism that is causing the trouble, then it is permissible to use a stock culture, but cultivated on the patients' own blood serum thus autosensitizing it. The dose can be made very much larger in these autosensitized vaccines.—C. W. H.

Metabolism in Typhoid. Coleman and Dubois, Arch of Int. Med., May 1915. Direct and indirect calorimetry in 61 cases, agreed within 2.2%. The same degree of oxidation and the same end-products occur as in health. It is stated that the rectal temperature does not give as good an idea of the average temperature of the body as surface thermometers, well covered. At the height of the fever, the heat production is 40-50% above the normal. Heat elimination is also increased. Fat may be stored while the patient is losing weight through the toxic destruction of body protein.

The Transmission of Tuberculosis in Childhood. W. H. Park. M. D., Arch. of Ped., July. Combined tabulation of cases reported and own series of cases.*

Diagnosis	Adults 16 Years and Over		Children 5 to 16 Years		Children Under 5 Years	
	Human	Bovine	Human	Bovine	Human	Bovine
Pulmonary tuberculosis	778	3	14	—	35	1
Tuberculous adenitis, axillary or inguinal	3	—	4	—	2	—
Tuberculous adenitis, cervical	36	1	36	22	15	24
Abdominal tuberculosis	16	4	8	9	10	14
Generalized tuberculosis, alimentary origin	6	1	3	4	17	15
Generalized tuberculosis	29	—	5	1	74	7
Generalized tuberculosis, including meninges, alimentary origin	—	—	1	—	5	10
Generalized tuberculosis, including meninges	5	—	10	—	76	1
Tubercular meningitis	1	—	3	—	28	4
Tuberculosis of bones and joints....	32	1	41	3	27	—
Genito-urinary tuberculosis	22	1	2	—	—	—
Tuberculosis of skin	10	3	4	6	2	—
Miscellaneous cases:						
Tuberculosis of tonsils	—	—	—	1	—	—
Tuberculosis of mouth and cervical nodes	—	1	—	—	—	—
Tuberculous sinus or abscess.....	2	—	—	—	—	—
Sepsis, latent bacilli	—	—	—	—	1	—
Totals.....	940	15	131	46	292	76

Mixed or double infections, 11 cases.

TOTAL CASES—1,511, of which 478 were cases tested by us.

*Journal of Medical Research; Vol. XXVII., No. 1.

Artificial Vagina. W. Douglas Ward, Rochester, N. Y., Surg., Gyn. & Obs., Nov., considers operation imperative if the uterus is functioning, and important for psychic reasons in the majority of all cases, even if no menstrual molimen occurs. Earlier plastic operations with skin flaps or peritoneum from Douglas's cul-de-sac, were mostly failures. Gersuny, 1897, took flaps from the rectum with success so far as the maintenance of a canal was concerned, but it was necessary to use a pessary. Baldwin of Columbus devised the present satisfactory method of using a portion of the ileum in 1904, but did not have opportunity to put it into execution till 1907. In 1912, he reported 6 successful cases. 7 other successful cases have been reported, including that of Thew Wright of Buffalo. (Buffalo Medical Journal, Dec. 1913). The author adds another successful case, a girl of 13, tarry blood to the amount of an ounce being found in the uterus. The Germans prefer to work with the lower bowel. Albrecht has constructed three vaginæ from sigmoid. Schubert and Strassmann 9 cases from the rectum.

OBITUARY

Readers are requested to report promptly the death of all physicians in Western New York, or former residents of this region, or graduates of any medical school in Western New York, and to notify the families of the deceased of our desire to publish adequate Obituary notices.

Dr. Herbert A. Morse, University of Michigan, 1866, died at his home in Batavia, October 15, aged 71.

Dr. E. L. Trudeau, P. & S. 1871, the well known authority on tuberculosis, died at Saranac Lake November 15, aged 67.

Dr. Harry W. Barber, University of Vermont 1906, honor man of his class, died at his home in Rochester, of angina pectoris, November 2, aged 35. He had already attained prominence as a surgeon, and was Assistant Surgeon and Anaesthetizer to St. Mary's Hospital, to which he had come as interne January 1, 1907. He was a brother of Dr. Leon Barber of Willard.

Dr. M. A. Veeder, Buffalo 1883, died at his home in Lyons November 16, aged 67. He was born at Ashtabula November 2, 1848, graduated at Union College 1879, and studied in Leipzig before entering the University of Buffalo. After graduating in medicine, he began practice in Lyons, with Dr. E. W. Bottume. Beside his affiliation with the regular medical organizations, he was a member of the American Society of Microscopists of which he had been Vice-President, and of the American Association for the Advancement of Science. As a young man, he was Principal of Ives Seminary of Antwerp, N. Y. While essentially a practitioner, he was greatly interested in the scientific aspects of medicine. He first definitely established the conveyance of typhoid by ice and by flies and was largely instrumental in the adoption of the open air treatment of tuberculosis.

Dr. George Miller Sternberg, P. S. 1860, LL.D. Michigan 1894 and Brown 1896, died at his home in Washington, November 3, aged 77. He entered the army in 1861 and was promoted until he became Surgeon General, with rank of Brigadier General, 1893, being retired in 1902. He was widely known, not only as a medical military executive, but for his personal studies in bacteriology.

Memorial Tablet to the late Dr. Roswell Park in Buffalo General Hospital. (Illustration by courtesy of Buffalo Express.)



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ORIGINAL ARTICLES

The right is reserved to decline papers not dealing with practical medical and surgical subjects, and such as might offend or fail to interest readers. Contributors are solely responsible for opinions, methods of expression and revision of proof.

*Surgery of the Duodenum

DR. EDGAR R. McGUIRE, Buffalo.

In the developing embryo we have three main divisions of the digestive tract—the foregut, midgut and hindgut. Clinically and anatomically we look upon the pylorus as the dividing line between the stomach and intestines, yet embryologically, we ought to place the dividing line at the junction of the foregut with the midgut, which is where the common bile duct enters the duodenum. In other words, we must consider the first portion of the duodenum as a part of the stomach, rather than as a similar structure to the jejunum. That the duodenum had definite peculiarities of which we know little, is certain. How are we to explain those cases of duodenal dilatation without apparent obstruction? Why should there be such a comparatively high toxicity to obstruction of the duodenum, as compared to any other part of the intestinal tube? Why does ulcer occur so frequently in the first portion of the duodenum, even though so subject to injury, and so constantly exposed to the high acidity of the stomach contents? Again, why should ulcer on one side of the pylorus be so prone to malignant change, and those on the other so resistant to that change? Primary carcinoma of the duodenum is so rare that it is almost a curiosity. And finally, have we an ideal treatment for these lesions?

Originally in the developing embryo the intestinal tube is comparatively straight. The caecum develops, and later rotates across the small intestine, until the normal position of the caecum is reached. Failure of this rotation to take place, explains the abnormal location of the appendix in different in-

*Published coincidently in Long Island Medical Journal.

stances. This normal rotation, however, makes the relation of the duodenum to the greater peritoneal cavity such a difficult matter for the average medical student to understand. Further, the duodenal jejunal junction is now a fixed point, and partial obstruction here, may explain some of the cases of duodenal dilatation. Others, are again explained by failure of the foregut and the midgut to accurately unite, thus partially obstructing the lumen. Some of these cases where no obstruction is present, seem to be associated with enteroptosis, these in turn, with intestinal stasis. Possibly the so-called "Lane Kink" and the "Jackson Veils" may be predisposing factors.

You are all familiar with the work of Whipple, Stone, and Bernheim, of Baltimore, on the toxicity of the duodenal mucosa. If a loop of the duodenum be closed (with a short circuit, operation beyond) the animals all die. Injection of the contents of the loop will kill another animal of the same weight. If these loops are drained outside, the animals still die, but if frequent washing of these loops be instituted, the animals will live. It is claimed that this material has the same effect on the other animal, if the bacteria are removed. A similar situation develops in certain cases of duodenal feeding for ulcer. I am informed by some of my medical friends, that it is quite possible to set up a duodenitis which produces most serious symptoms. All of which seems to indicate that under certain forms of obstruction there is some peculiar toxic property to the duodenal mucosa. Murphy, of St. Louis, has also recently reached the conclusion that the toxicity of intestinal obstruction is sometimes due to changes in the mucosa. His further, and very important suggestion lies in the fact that these changes may take place in the mucosa—say in a strangulated hernia—without visible change in the outer coats. Certainly a few cases have died where resection was not made, and autopsy has revealed nothing. This suggests the necessity of possibly removing the mucosa by resection, in delayed cases where the intestinal wall seems to be viable.

In considering the etiology of duodenal lesions, we must view them in their relations to associated conditions. For instance, it would not be fair in considering a breaking down lymph node in the neck, to forget the relation existing between it, and not only the other structures of the neck, but also those inside the mouth. This condition is not unlike infection in the abdomen. We know that the liver is a large organ into which the infected drainage of the entire abdomen is passed, in fact acting as a filter, in a not dissimilar way to the lymph nodes. Doubtless under normal conditions the bile is sterile, but with a primary infected focus in the abdomen, there must come a time when certain infection is carried out

in the bile. What role does this play in the production of—first, gall-stones, and second, ulceration of the duodenum? We have heard much of the typhoid organism as a creative factor in cholecystitis, and gall-stones. This is an error, as nearly recent statistics base it below 10%. The very recent work of Rosoneau, shows not only the prevalence of colon bacilli, but also streptococci in cholelithiasis and cholecystitis. Rosonau's work at first thought, would point to the mouth infection as being the only exciting cause of gastric and duodenal ulcer, but on further study it would seem—first, that these are secondary lesions—second, that they are metastatic in character, and third, that the primary lesion may be located almost anywhere. That the tonsils and teeth play the most important role, I do not doubt, but that it is the sole cause is open to question. Recently Dr. E. Gould had a patient, a young girl, taken acutely ill, with patches on her tonsils. The following day she developed pain in the abdomen. Twenty hours later I operated, and found a typical appendix. Cultures taken from the throat showed staphylococci, and scraping from the mucous membrane of the appendix, after washing, showed the same organism. A recent review of this literature, with a report of a similar case, is given by Anderson, in the October issue of the *American Journal of the Medical Sciences*.

One who has seen much of this work, cannot fail to be impressed by the frequency with which several of these abdominal lesions are co-related. Almost universally one finds a duodenal ulcer, associated with a far from normal appendix. How often in gall-stones, one has been surprised at finding the evidence of old trouble in the appendix. Again, at times, and this seems particularly true of ulcer, one is almost forced to accept Lane's view of ulcer being due to intestinal stasis, because of the frequency with which one finds the two associated. I cannot but feel that the lesions in the upper abdomen are secondary processes, infective in origin, secondary to a primary lesion almost anywhere, but most frequently in the tonsil and infected tooth pockets. Having these theories in mind, the treatment must include attention to the primary lesion in every case. I think the appendix also should be removed in every case of ulcer or cholelithiasis. The treatment of stasis is too uncertain a question for me to venture an opinion, but when present, adequate medical measures at least should be instituted.

Of course one of the vital questions in the treatment of these lesions is—do they undergo malignant change, and if so in what proportion? If malignant changes occur in any considerable proportion of these pyloric ulcers, the treatment must sooner or later be that of excision. On the other hand, if the proportion be small, in what cases are we justified in fol-

low Rodman's suggestion of excision? At present, one side of the problem is championed by the Doctors Mayo, who say that 80% of their cases of cancer of the stomach, show evidence of the malignancy being ingrafted on a chronic ulcer. The other side dispute their claim, even to the extent of denying that the changes spoken of are carcinomatous at all. I am totally unfitted to pass any judgment in this matter, only to add—I have the greatest confidence in the pathological work of the Mayo clinic. Further—the one fundamental fact that seems to be established regarding carcinoma, is that it follows chronic sources of irritation wherever they may be. Until these questions are definitely settled, the matter of excision must be seriously considered in these lesions.

The actual conditions in the duodenum demanding surgery, are congenital obstruction, ulceration with later obstruction or perforation. The treatment is usually a question between some form of excision, and gastro-enterostomy. So much has been written on the subject of gastro-enterostomy for ulcer, that it would seem useless to discuss the matter further. However, we have all found it to be far from an ideal performance in every case. Do not understand me as condemning it entirely, but there are a few objections which must be considered. The early work on gastro-enterostomy gave many instances of biliary regurgitation, but the later short loop, or no loop, has reduced this materially. This is still a serious problem, however. I would refer you to the recent literature where Bloodgood, Erdmann and others, have spoken of its more than occasional occurrence. Erdmann, in a discussion of this subject in the New York Academy of Medicine, said that nearly all of his recent cases of gastro-enterostomy, had required the stomach tube to relieve the dilatation associated with biliary regurgitation. It has happened to me several times within the last two years, once associated with acute dilatation of the stomach, which ended fatally, again, where after repeated washings the patient recovered, and a third, where I made the error of re-opening the abdomen, and found nothing abnormal. It is almost certain where the associated pyloric spasm has been relieved, or the attempted pyloric closure has given way, that the food passes through the pylorus, and not through the anastomosis. I am of the opinion that the excellent results following gastro-enterostomy, occur in those cases where healing of the ulcer caused sufficient contraction to close the pylorus. In any event, **there are many cases where gastro-enterostomy has been performed even in the presence of definite duodenal ulcer, which have failed to be permanently relieved.** Further, surely nature never intended to dispose of the duodenum by any such short circuiting procedure. I am fully in accord with the statement of doctor Finney, when he says

“Gastro-enterostomy ought to be an operation of necessity, never of election.”

You will say—if good results follow the closure of the pylorus due to contraction of the ulcer, why not accomplish this in another way. Together with my associates, Drs. Butsch and Evans, I have worked for almost two years, trying out on animals, each of these known procedures for closure of the pylorus. First, a systematic effort was made to occlude the pylorus in normal animals without gastro-enterostomy. This work was reported in the *Journal of the American Medical Association*, issue of October 3d, 1914. It was done for the purpose of establishing the necessity for or against gastro-enterostomy in cases of acute duodenal perforation. As a result, I can definitely state that it is **impossible to produce obstruction by excising any amount of duodenal wall in normal duodenum**. Even though but a ribbon is left which will admit only the finest probe, it will dilate sufficiently for the ultimate recovery of the animal. Finally I have produced this condition in the human, in about twenty perforations where the ulcer was excised, and no obstruction resulted. I believe it to be impossible to produce obstruction where all of the scar tissue has been excised. If, however, the ulcerating area be not thoroughly excised, obstruction does occur in a considerable proportion of cases. This would seem to prove the inadvisability of performing gastro-enterostomy in the presence of acute perforations of the anterior wall of the duodenum, where excision is impossible.

The second group of experiments was performed in order to produce pyloric occlusion in the presence of gastro-enterostomy. These may be summarized about as follows: Circular ligatures of catgut and silk, whether tied loosely or tightly, almost invariably pass into the lumen, without producing any permanent obstruction. Purse string sutures of all sorts produce the same result. Wrapping the pylorus with wire—as suggested by Ochsner—strips of aluminum suggested by Brewer, failed in a certain percentage of cases. Fascial strips laid around are more successful, but are not universally so. The round ligament of the liver is usually permanent, because it is a living graft, but again, this is not absolutely trustworthy. The many modifications, including excision of the mucous membrane, either duodenal or stomach, are equally uncertain. The complete division with suture of both ends, whether done first by Von Eiselberg or Doyen, is almost universally successful. Doctor Gerster however, has a patient in which this operation was done, and X-ray shows bismuth going through the pylorus. A rather complete review of this subject is given by Doctor Bartlett, of St. Louis, in the *Journal of Medical Sciences*, issue of May, 1915.

Lantern slides were shown presenting X-ray pictures of the stomach of dogs following each of the above procedures.

In our series of experiments, we found that while it was impossible to secure complete occlusion by any method excepting that of Von Eiselberg, yet in practically all of the methods, in the presence of a gastro-enterostomy, sufficient occlusion took place by adhesions around the duodenum, to send most of the bismuth through the anastomosis. In our work we found that a great many of the dogs did poorly following any method of gastro-enterostomy. For a time all goes well, but finally loss of weight to the point of extreme emaciation takes place, and often times death. It has seemed to us, that the greater the occlusion of the pylorus in dogs, the more rapid the emaciation. Further, a remarkable dilatation of the stomach occurs in many of these animals, and in many of them the X-ray shows bismuth going through the anastomosis—yet—on autopsy, an anastomosis large enough to admit two fingers was present. Of course we know in the human this is not so, because there has been sufficient number of operations after complete closure, to disprove both features. I merely mention these circumstances in dogs, because I have been unable to explain them.

In reviewing this work, I cannot refrain from adding a remark by that exceedingly clear and gifted surgeon, Doctor W. J. Mayo: "That in the presence of real ulcer, any operation of pyloric occlusion is probably unnecessary." This is doubtless the key note to the whole situation, because the contraction of the ulcer in healing, produces the ideal form of pyloric occlusion. However, if one desires to produce a permanent block for any reason, the Von Eiselberg method is the ideal performance. In view of its greater danger, and the high percentage of closures, clinically, by the other methods, it is unwise in my judgment, to attempt it in any but exceptional instances. The ordinary infolding suture has no mortality, and while not successful in all instances, offers a sufficiently reliable method for most cases.

Surgery in this region is sometimes particularly difficult, because it is almost impossible to distinguish between a benign perforation with inflammatory exudate around the perforation, and malignancy. In a recent discussion on this subject, Doctor Rodman made a perfectly plain statement, that this diagnosis is often impossible, either by clinical methods before operation, or by palpation during laparotomy. I would go further, and say at times the diagnosis is almost impossible by the microscope. In the presence of this dilemma, how is one to decide in favor of an anastomosis or excision? If one accepts the assurance of many, that these become malignant in the future, one must lean towards Rodman's excision. In this connection I have had a few experiences which are of interest,

bearing on both sides of the question. In one instance I considered the condition malignant, and inoperable, merely doing an anterior anastomosis. Five years later I operated for an acute perforation of an ulcer in the jejunum, at the sight of the anastomosis and found that the original tumor had entirely disappeared. The patient is still alive and well. In this instance I should have performed a posterior anastomosis, had I not made the error of believing this to be an inoperable carcinoma. On the other hand, Mr. W. was treated for four years for ulcer. X-ray pictures taken one year before operation showed contraction, almost obstruction, quantities of bismuth remaining in the stomach after twenty-four hours. One year later I found a large mass, which on section showed positive carcinoma. This patient has since died of recurrence. This case to my mind is positive evidence that a malignancy can occur on an old ulcer base. In view of these facts, it would seem that the ideal procedure were that of excision, in any doubtful case. However, in view of our lack of knowledge regarding the frequency of this malignant change, and the greater mortality from excision, over gastro-enterostomy, it is probably wiser in most cases to be content with gastro-enterostomy.

When one has a chronic ulcer which has not perforated, conditions are of course different. Here I believe the posterior ones all need a gastro-enterostomy, excision being too hazardous. The anterior ones however, can be easily excised. The ideal procedure would be excision, combined with a Finney gastro-enterostomy. This operation is ideal in that it removes the lesion, and restores the intestinal tube to its normal condition. It is unfortunate that the duodenum is often so fixed as to render this operation difficult, if not quite impossible. In the *Journal of Medical Sciences*, issue of October, 1915, Finney reviews the end results of 100 cases of gastro-enterostomy, and 100 cases of gastro-duodenostomy. His conclusions favoring the Finney gastro-duodenostomy are of interest in this connection.

With reference to gastro-enterostomy, there are a few suggestions I would like to make regarding the technique which have materially improved my results. **First**—the opening of stomach should not be near the pylorus, but at the lowest part of the stomach, as the Hartman operation favors biliary regurgitation. **Second**—the posterior wall of the stomach should be fastened well down in the greater cavity, to prevent regurgitation. **Third**—hemorrhage from the new opening is best controlled by tying the individual vessels, and not trusting to a running suture alone. **Fourth**—in the opinion of Doctor W. J. Mayo, continued sutures of silk or linen slough into the lumen, and are the cause of secondary ulcers, therefore the suture material should all be of catgut, or possibly interrupted

sutures of linen in the outer layer. There seems to be a great prejudice against catgut, but with the improvement in sterilization and hardening, it is now easy to secure a catgut as fine as the usual silk suture, which will last for at least two weeks. In most of my recent cases I have used catgut throughout.

In conclusion I would offer the following: (1) One cannot produce obstruction by excision of the normal duodenum. (2) In the presence of gastro-enterostomy, complete division with suture is the only positive method of blocking the pylorus. (3) Clinically probably most methods of blocking are sufficient, especially in the presence of active ulceration of the duodenum. (4) Excision of the ulcer is the ideal procedure in all cases. (5) Gastro-enterostomy while not ideal, is frequently an operation of necessity.

In closing I want to express my appreciation for the help rendered me by Drs. Butsch and Evans, as the operations on animals were all performed by them. Also for the courtesy shown me by the New York State Institution for the Study of Malignant Diseases, and the University of Buffalo, where the experimental work was done. My obligation to Dr. Koenig for his interest in the X-rays and slides, is also great as you have seen.

430 Delaware Avenue.

Recovery After Operation for Cerebellar Cyst. Langley Porter of San Francisco, Arch. of Paed., Oct., reports the case of a school girl, aged 11, who had never menstruated. Onset gradual three years before, following jaundice. Fatigue, vertical and prefrontal headache, later vertigo, Sept. 12, 1913, entire cerebellum exposed from above lateral sinuses down to and including posterior part of foramen magnum, from mastoid to mastoid. Sept. 19, after negative exploration along tentorium, cerebello-pontine angles and base of cerebrum, trocar introduced into cerebellar lobes, encountering resistance at depth of 1 C. M. in right, not in left. Cyst found, about 4x8 C. M., opened and clear fluid evacuated. Ultimate recovery apparently perfect.

Malignometer. Friedrich Klein and Chas. H. Walker, N. Y. Med. Monatschrift, Oct., recur to their test for sarcoma and carcinoma. Equal parts (2-4 C. C. each) of urine and HCl are mixed without artificial heat. About 10 drops of decinormal or centinormal sodine solution is used and the degree of color indicates the presence of malignancy. At least 20% strength of HCl must be used—about double the strength of the official dilute acid.

Some General Considerations in the Post-Operative Care of Uncomplicated Abdominal Sections.

By REGINA FLOOD KEYES, M. D.,

Woman Gynecologist Buffalo General Hospital; Obstetrician
Erie Co. Hospital; Obstetrician St. Mary's Hospital;
Clinical Instructor Obstetrics University of Buffalo.

The general principles regarding the after-treatment of abdominal cases are well known. Upon this post-operative care hinges, not only the patient's best chance of recovery, but the best final functional result. Considerations, not always recognized as important, are the patient's mental condition and surrounding influences during convalescence. To these should be given the same careful investigation as to the workings of all the organs.

In the majority of cases, after a properly conducted aseptic operation, what the patient requires most is to be let alone and allowed to get well. Complete quiet is to be maintained for twenty-four hours and in my opinion morphine should be administered in $\frac{1}{4}$ -grain doses frequently, then replaced by a milder sedative. The posture in bed is of importance and should not be confined to one position and on the morning of second day head rest is to be used. This favors peristalsis and assists materially in relieving flatus and nausea. Changes in posture are safe-guards against hypostatic pneumonia and the mental effect of sitting up increases confidence and acts most favorably.

The degree of nausea and vomiting following the administering of an anesthetic governs the treatment and it may be said, the less ether, the less nausea. In mild cases, no treatment is necessary beyond rest for the stomach. When vomiting persists, it may be treated by the use of milk of magnesia and after twenty-four hours a 0.02 Cocaine, one minim of Carbolic Acid, one or more minims of dilute Hydrocyanic Acid in a small amount of water. This prescription was introduced by the late Dr. Roswell Park and is in use in the Buffalo General Hospital.

Enemas given morning and night will relieve flatus and are preferable to cathartics. The less medication after laparotomies, unless for some special indication, the quicker will the patient's gastro-intestinal canal return to normal.

Cracked ice and water may be given as soon as desired and when the anesthetic nausea has ceased, liquid food may be given. Milk or light broths are best, then follow with farinaceous foods. The appetite may not return for days and it is

not necessary to force the feeding. Rectal feeding may be used, but is not generally indicated.

Close attention should be given to the excretions and every measure taken to promote voluntary evacuation of the bladder. If, however, retention does occur, the catheter may be resorted to. More than ordinary care is necessary to prevent infection in this procedure. The passage of flatus and early movement of the bowels is most gratifying to the surgeon and not more than twenty-four hours should elapse before evacuation occurs.

A wound aseptically made usually heals without complications. The dressings should be carefully watched, although too early and too frequent inspection is not advised. Re-dressing is usually done from fifth to seventh days, at which time the stitches are removed and dry sterile gauze applied. During the dressings, the wound or parts surrounding should never be touched by the hands. All manipulations should be done with sterile instruments and sponges and as much care exercised in the preparation of the hands as is employed at the original operation. The use of rubber gloves precludes the danger of infection only as they are properly donned and the general rules of strict asepsis observed.

The stay in bed should be as short as is compatible with wound rest. A properly fitted bandage relieves wound tension, gives a sense of comfort and tends to prevent the occurrence of future hernia. Normal quiet is maintained in this way and the intra-abdominal pressure acts with the extra-abdominal support to affect the rest of the wound and surrounding parts.

Sunlight and fresh air are as essential to recovery of the surgical case as of the medical. The removal of patient, for a few hours every day to the open air, beginning not later than the end of first week, aborts many of the nervous symptoms and hastens convalescence. Reiss of Chicago, Fowler of Brooklyn and Mayo Brothers of Rochester, have their patients out of bed from the third to fifth days after laparotomies. My practice has been, during my entire service of seventeen years at the Buffalo General Hospital, to have my patients out of bed on the fourth to sixth day. From the first the patient should be encouraged to help herself, to be allowed to get out of bed without aid and after the first day out of bed, should walk unassisted. By the tenth day patient should be in condition to leave hospital if residing locally.

The best functional results are dependent largely upon the surgeon's ability to surround patients with healthy mental influences. If allowed to dwell upon the seriousness of their own condition or permitted to discuss the morbid details of similar cases, nervous symptoms usually appear and may result in pronounced hysteria. It is my practice to pledge my patients

to abstain from all thought or discussion of their operations and to refuse to listen to details of the surgical experiences of their friends. In the cases where I have had intelligent co-operation in this particular phase of post-operative care, I have had the best functional results.

Pneumonia Inoculation. G. D. Maynard, Med. Jour. of S. Africa, Sept. In order to determine whether systematic inoculation should be practiced in native mine workers, the following statistics were collected. A total of 55,900 natives were equally divided, half being inoculated. In 10 months, 576 cases of pneumonia developed in the uninoculated, 459 in the inoculated: 20.6 and 16.4 : 1000, respectively. Of the former 78 died, of the latter 61: 13.5 and 13.3 : 1000, respectively. By periods of 4 weeks, after inoculation, the inoculated showed a lessened incidence, as follows: 1st period, 97 against 119 cases in uninoculated; 2d period, 90 against 120; 3d period, 60 against 83; 4th period, 56 against 86; 5th period, 43 against 57. Thereafter, the incidence was slightly greater among the inoculated. With reference to other respiratory diseases and to disease incidence in general, no appreciable difference was noted, although another series suggested that there was a slight diminution of respiratory diseases generally, because many of them were of pneumococcic origin, though not anatomically pneumonia. The question whether repeated inoculation would have a beneficial action is waived.

Specialism. P. R. W., a student of the Harvard Medical School, Boston M. and S. Jour., Nov. 18, has canvassed the graduates of three recent classes and compiled statistics of 86 heard from. 27 of these had secured essentially medical hospital internships, 26 surgical, 27 mixed services, 1 a pathologic service and 5 none. 69 gave replies as to nature of private practice which may be interpreted as general practice, 8 surgery, 2 surgery and obstetrics, 1 eye, ear, nose and throat, 5 laboratory work, 1 not practicing. He calls attention by statistics which we do not cite, as they are susceptible of various constructions, to the fact that the internship does not necessarily fit the individual for the work in which he ultimately engages.

Resection of Tuberculous Lymph-nodes. In the October Clinics, Dr. John B. Murphy incidentally mentions that it is now eight years since they performed the last dissection of the neck for tuberculous glands. They use tuberculins and do no surgical operation except occasionally to drain if a mixed infection is present.

Intratracheal Insufflation.

By BENJAMIN MERRILL RICKETTS, Cincinnati.

From American Journal of Surgery, Oct., 1915. Abstract and remarks by Dr. George Edward Fell, Buffalo, N. Y.

As early as the middle of the sixteenth century Vesalius, 1514-1564, recognized the possibility of aerating the blood, after the chest had been opened, by passing a continuous current of air through the lungs.

He was requested to open the thorax of a man supposed to be dead. The heart began to beat, but he soon died. Vesalius was prosecuted for murder, but the King of Spain saved him.



Fig. 1. 1514—Vesalius—1564.

In 1667 Hook read before the Royal Society a paper entitled "An account of an Experiment Made by Mr. Hook by Preser-

ving Animals Alive by Blowing Through Their Lungs with Bellows."

In his experiment, Hook, having laid open the entire thorax of a dog and removed the peri-cardium, sustained the animal's life, first by reciprocal inflation and deflation of the lungs in imitation of normal respiration, and then by means of a constant current of fresh air under such pressure that all respiratory movements of the lungs themselves were suspended. Both methods were successful in continuing animation and the pulmonary circulation.



Fig. 2. Fell-O'Dwyer Apparatus.

While mechanical respiration remained a valuable adjunct of laboratory experiment for almost 250 years, its failure as a human resuscitative measure in the practice of such surgeons

as LeRoy de Etioles of France, and John Hunter, Monroe and Dalrymple of England, forced the scientist, John Erichson, in 1845 to conclude that, **“In spite of all the improvement and**



Fig. 3. 1728—John Hunter—1793.

modifications of the technique and the methods of inflation by bellows, mechanical respiration never again came into favor and was speedily forgotten when the postural methods came into use.”

Marshall Hall was especially severe in his condemnation of forced mechanical respiration by means of bellows, and until 1887 the postural resuscitative methods of Hall, Sylvester, Schäfer, and Howard were extensively employed.

On July 23, 1887, Dr. George Edward Fell of Buffalo, N. Y., after all the postural methods of resuscitation had been tried and failed, by means of “forced respiration” saved the life of a patient who had taken twenty grains of morphine and some chloral hydrate, even after the pupils had dilated in the last stage of asphyxia. Within about three months following, Prof. Dr. Bohm of the Allgemeines Krankenhaus in Vienna, saved the life of Dr. Länger by the same method.

Other successful cases by Dr. Fell of a similar character followed, and established a new epoch of artificial respiration,

In practice Dr. Fell used an especially devised double bellows, producing a constant column of air controlled by an ingenious cornet piston valve controlling absolutely the inflation and deflation of the lungs, duplicating normal breathing. His success depended upon his long experience as a physiologist and vivisectionist, and its application from an intelligent physiological standpoint. To his valve he added an oxygen and anaesthetic tube, and **first** applied the face mask in the resuscitation of serious cases in forced respiration. In two instances—those of Dr. Williams and young Mr. Archer, reciprocal respiration was continued intermittently in the former and almost constantly in the latter during four days, with recovery of the patients, and without any untoward laryngeal or systemic complications.

Dr. O'Dwyer prepared an intubation tube connected to a single bellows with an opening, the suggestion of Fell, and by which the respirations were readily controlled.

It was through the incentive given to artificial respiration by the introduction of Fell's method of "forced respiration," and the adaptation of etherization to the technic, that the surgery of the **thorax, through its utilization became a possibility.** F. W. Parham of New Orleans was the first to successfully remove a sarcomatous growth from the walls of the thorax, using "forced respiration anesthesia" by the Fell-O'Dwyer method, for purposes of the narcosis and combating pneumothorax. The operation was performed under reciprocal breathing, and the chest walls were closed with the lungs fully inflated. Complete recovery of the patient ensued.

About 1896 the French surgeons Tuffier and Hallion concluded that their experiments justified the continuous insufflation method on man. In 1902 Matas of New Orleans turned his attention to a solution of the surgical problems involved in pneumothorax.

While Kuhn of Cassal in 1895 improved his method of insufflation by intubation and demonstrated the pulmonary application of anaesthesia personally by visits to Czerny, Trendelenberg, Angerer and Lotsch, the method was not favorably received in intra-thoracic surgery on the human subject.

In 1908 Robinson of Boston intubated through the mouth to the bifurcation of the trachea, sending in air under pressure through a canula, and letting the exhaust escape by way of the remaining lumen of the trachea. He did not follow this up but became interested in progressive improvements in the Brauer and Sauerbruch methods.

Mikulicz, however, must be credited with the first systematic investigation of the physiological problems besetting intra-thoracic surgery. At his suggestion in 1903 Sauerbruch began a series of experimental researches, and in 1904 completed

cabinets for intrathoracic surgery, using respectively positive or negative pressure.



Fig. 4. George Edward Fell, M. D., F. R. M. S., Buffalo, N. Y.

The outstanding pioneer of intratracheal insufflation.—Benjamin Merrill Ricketts, Cincinnati, Ohio.

The first physician to use forced respiration in actual human poisoning so far as my reading goes, was Dr. George Edward Fell.—Horatio C. Wood, Berlin Int. Med. Cong., Aug. 25th, 1890.

According to Marshall Hall and the surgeons of his day, and according to every one, until Dr. Fell proved the contrary, it seemed that blowing air into the delicate tissues of the lungs, must necessarily result in traumatism of this organ.—Albert J. Ochsner, Chicago Med. Socy., Feb. 2, 1910.

He (Dr. Fell) started the whole thing.—Willy Meyer, New York, 1912.

I wanted to add in discussion again my little share of admiration for the excellent and important work done and the wonderful persistency and tenacity of purpose exhibited by you, one of the very first pioneers in thor-

acic surgery of almost thirty years ago.—Telegram, April 28, 1915.—Willy Meyer, 1915.

Dr. Fell has done work that must be classed with the greatest inventors of any time, such as Morse, Fulton and Watt.—Discussion of Dr. Fell's paper Apr. 28, 1915.* Geo. W. Crile, Cleveland, Ohio.

Your pioneer work in artificial respiration should be adequately recognized.—(Letter) Rudolph Matas, New Orleans, La.

"If he had thrice successfully demonstrated that thousands of lives may now be saved that would have been lost six months ago, he would have been famous through the world today * * * he has not so quickly reaped cosmopolitan fame, but though it comes more slowly, it will surely come, and in his glory Buffalo will proudly share."—Editorial Jas. N. Matthews, Buffalo Express, Jan. 27th, 1888. In discussion of Dr. Albert H. Briggs, Apr. 28th, 1915. N. Y. State Med. Socy.

*Not yet published by State Society.

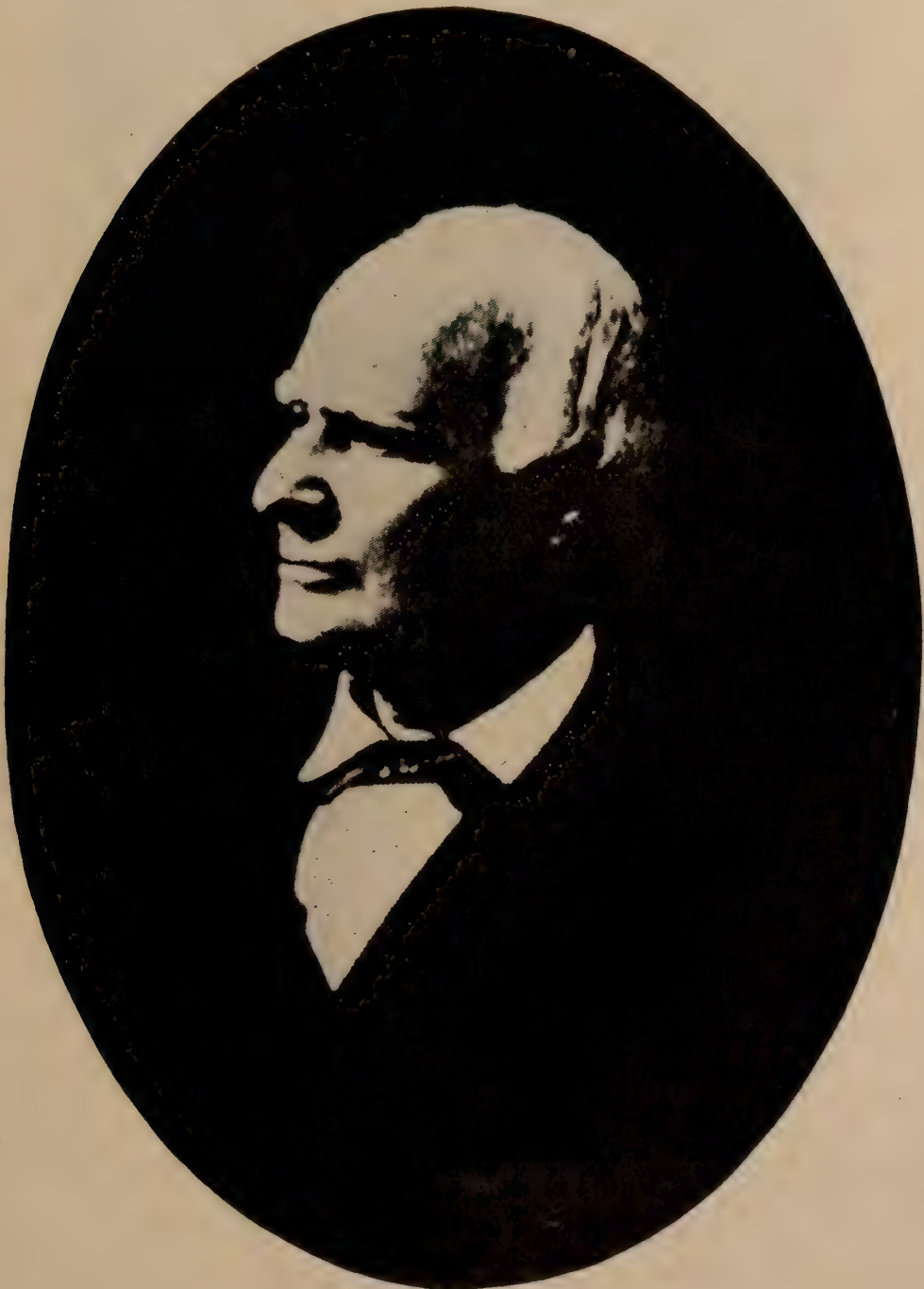


Fig. 5. 1805—Dr. Robert Peter—1894.

While Sauerbruch soon discarded his hyperatmospheric apparatus in favor of his negative-pressure cabinet, Brauer, working independently, developed the first positive-pressure chamber to come into general use. The apparatus devised by Karewski resembled closely that of Brauer, as did also the initial cabinets of Janeway and Green. The devices of Tiegel and Brat-Schmieden were essentially of the emergency or laboratory type, although an effort was made to adapt them to the more exacting requirements of intrathoracic surgery on the human subject.

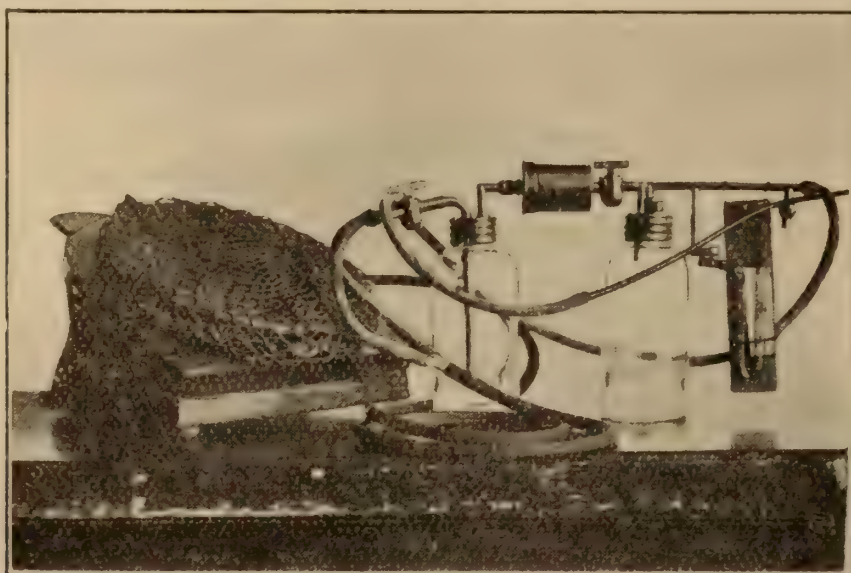


Fig. 6. A modern type of intratracheal insufflation apparatus.

What Carrel has termed the **classical type** (cabinet) of apparatus has found its apotheosis in the new intrathoracic surgical pavilion of Willy Meyer at the German Hospital, New York, in which it is possible to operate differential, positive, or negative pressure at will.

Until the present popularization of intratracheal insufflation by the Meltzer-Auer technic, whatever real progress has been made in intrathoracic surgery on the human subject must be credited to the **classical type of apparatus**.

In 1908 Meltzer saw Sauerbruch doing intrathoracic surgery, and later witnessed some of Willy Meyer's operations at the Rockefeller Institute, and seeing both pleural cavities wide open and the animals continuing to breathe, but not trusting the evidence of his own eyes, he went into his laboratory to verify the experiments. A year later, in association with Dr. Auer, he published an article on "Continuous Respiration without Respiratory Movements." After Meltzer had perfected the technic of intratracheal insufflation in his laboratory, Elsberg, with the assistance of Yankauer, developed an apparatus for its use on the human subject, and personally administered anaesthesia by this method for a successful thor-

actomy performed by Dr. Lilienthal at Mt. Sinai Hospital in 1910.

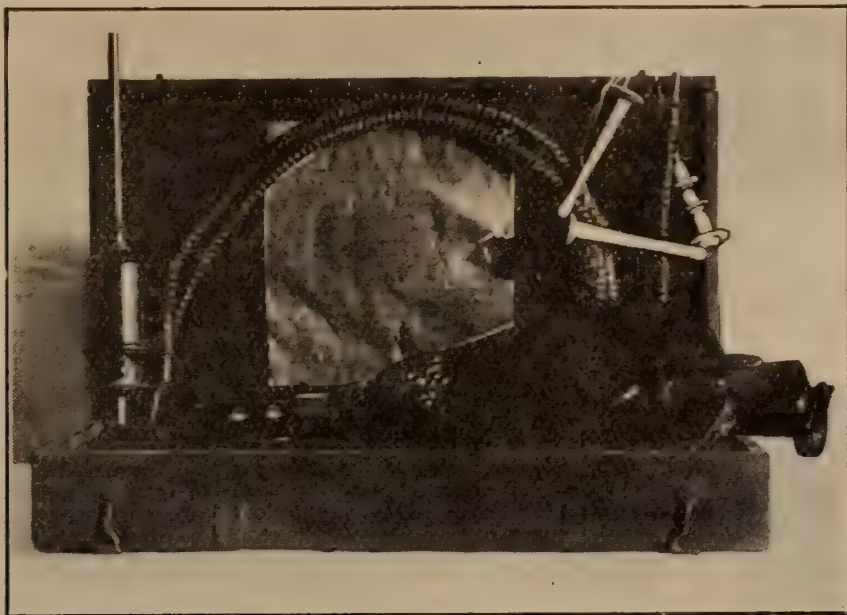


Fig. 7. An old type of intratracheal insufflation apparatus, (1750) purchased by Dr. Peter in Paris in 1836, and presented by his daughter to Dr. A. H. Barkley of, Lexington, Ky.

Dr. Fell had prior to this arranged his apparatus virtually in order the same as the so termed Elsberg method (see Fig. 10), and demonstrated it before the Chicago Medical Society February 2nd, 1910. "He illustrated all the points of his paper. His rubber lungs, double bellows and blower run for both positive and negative pressure by electric motor were utilized," as also the use of the three necked Woolf bottle for ether anaesthetic purposes. "In surgical cases of the thorax, his apparatus under the control of the cornet piston valve, will permit the lungs to collapse almost completely * * * or keep the lungs completely inflated to any extent, for any length of time" * * * and the intrathoracic tube can be utilized.

But to Elsberg, and Peck (New York) and Davies (London) belong the credit of adapting intratracheal insufflation to intratracheal surgery, but of demonstrating its value as a technic of narcosis in the surgery of the head and neck.

Physiological Considerations.—Progress in intrathoracic surgery has depended absolutely on the mechanical control of pneumothorax during the operative procedure. This mechanical control has varied in different methods, from that of the Meltzer-Auer technic, in which the lungs for certain periods have been so distended by a constant current of air as to preclude more or less any respiratory movements, to that of Volhard-Sollman, in which the lungs have been allowed to collapse, while a current of oxygen sustained life.

Any consideration of pneumothorax involves an understanding of some elementary facts of the respiratory mechanism. Respiration is made possible in the thorax of the human subject by a partial vacuum existing in the pleural space after the contraction of the lungs during expiration. This vacuum is represented by a varying negative pressure of from 4 to 10 mm. of mercury. Consequently thoracotomy requires either positive-pressure insufflation, with or without respiratory movements, or autorespiration in the negative or differential pressure cabinet, to prevent the collapse of the lung resulting in dyspnea, displacement of the thoracic viscera, shock and death.

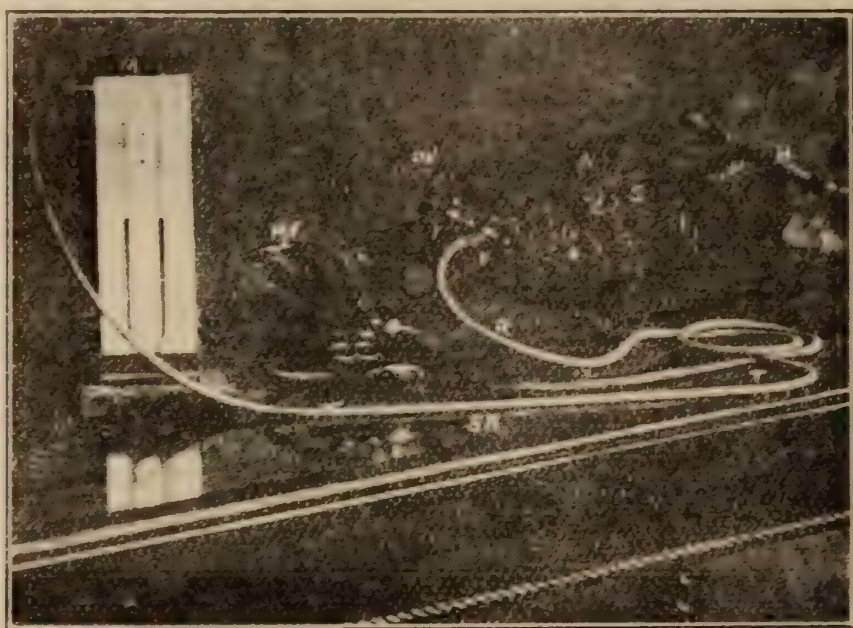


Fig. 8. Original model of the Matas intratracheal insufflation apparatus.

With the body of the patient within the cabinet in which the air has been rarefied to approximate the negative pressure in the pleural cavity (4 to 10 mm.) and the head of the patient is outside the chamber, permitting the respiring of normal pressure atmosphere, Sauerbruch, by varying the negative pressure as required, has been able to conduct intrathoracic operations with almost the same confidence as in abdominal surgery. In the Meyer cabinet differential pressure allows the surgeon to use positive, negative, or combinations of both pressures as needed. The great distinction between the cabinet control of the pneumothorax and intratracheal insufflation is that in the former autorespiration is depended on to conserve life, and already overtaxed and weakened nerve centers are called upon to formulate respiratory impulses, while during intratracheal insufflation these centers can be made to remain passive, thereby adding a determining factor between success and failure.

Respiratory movements are not only concerned in the aera-

tion of the lungs, but also contribute a factor essential to the normal maintenance of the pulmonary circulation and of considerable importance to that of the systemic.

Meltzer has found it inadvisable to use a pressure which altogether suspends respiratory movements, resulting in apnea and CO_2 asphyxia, and suggests that, insofar as it is possible or necessary, the lungs be periodically deflated five or six times to secure not only a more satisfactory diffusion of the air and anesthetic in the smaller bronchi and alveoli, but also to eliminate CO_2 accumulation, and further to preserve the stimulus of respiratory movements upon the pulmonary and systemic circulations. In cases of open pneumothorax in which the respiratory mechanism is not paralyzed, spontaneous respirations offer the required aid to continuous intratracheal insufflation.

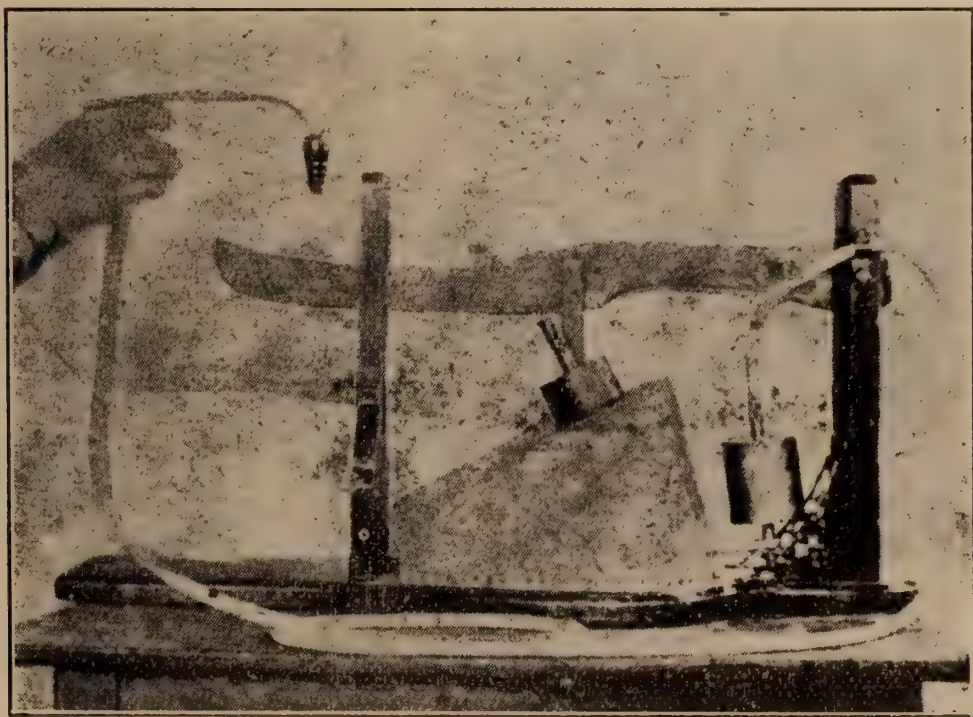


Fig. 9. Dr. J. D. Bloom's modification of the Fell-O'Dwyer apparatus as used by Dr. Parham in the Charity Hospital of New Orleans.

However, it is always advisable to arrange for occasional interruptions of the continuous insufflation, especially in operations in which the thorax has to be laid wide open and the posterior and inferior portions of the lungs have to be dislocated, in which condition spontaneous respirations are of no avail. The occasional deflation of the lungs insures the continuance and efficiency of the pulmonary ventilation under all circumstances. It is essential, however, that this deflation be not allowed to result in a complete collapse of the lung, for reinflation under the circumstances may leave portions of the lung atelectatic.

Physiologically, the intrinsic value of intratracheal insufflation is exemplified not only in the original work of Fell, but also in the laboratory experiments of Shaklee and Githens on the treatment of strychnine poisoning, in which, although the very centers of respiration were paralyzed, intratracheal insufflation reached the climax of its usefulness as a measure of resuscitation and the conservation of life.

And yet it must be held that intratracheal insufflation has not reached that acme of resuscitative value, or any other measure so far utilized that the rythmical method of Dr. Fell in the two longest cases on record, where the centers of respiration were paralyzed for nearly four days and the lives of the patients were saved.

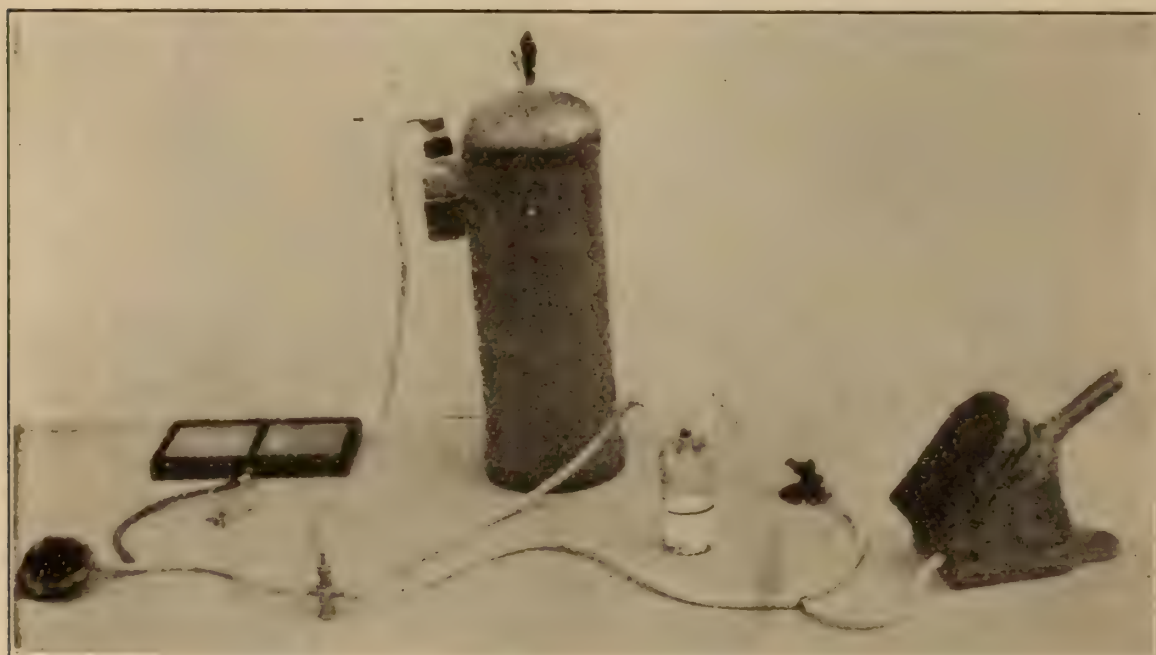


Fig. 10. The Fell apparatus with oxygen and anesthetic bottle, 1891-1910.

Meltzer has also found that anesthesia by intratracheal insufflation is far superior in many respects to the usual methods of administering ether. The anesthesia is much safer, far more readily controlled; less of the anesthetic agent is used, patients go under and come out more rapidly, and an efficient method of artificial respiration is immediately at hand to take care of untoward complications.

All investigators have found it expedient to add a tank of oxygen to their armamentarium for intratracheal insufflation. Under certain circumstances a persistent cyanosis will develop, which nothing short of oxygenation will control.

Technic of Intratracheal Insufflation Anesthesia.—Apparatus for intratracheal insufflation anesthesia has multiplied rapidly since the popularization of the method by Elsberg. However, all apparatus is similar in certain essentials. The source of air current may be provided by foot bellows, hand-driven or

electrically-driven pumps, and tanks of compressed air. The air-current may pass directly into the ether container, or as is more advisable, is stored in a low-pressure tank or gasometer from which it passes into a Woolf bottle, to be heated and moistened, and thence by regulating valve, either directly into, or only partially through, the ether container, thereby providing for aeration pure and simple or insufflation with varying percentages of ether.

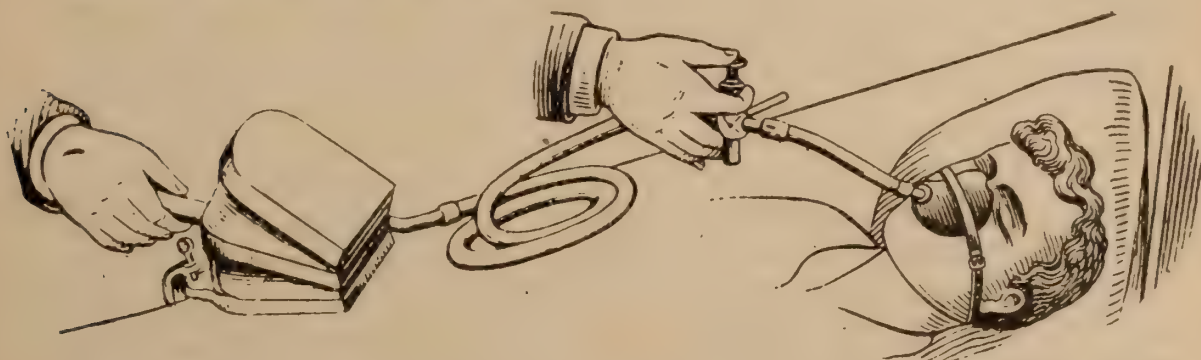


Fig. 11. The original Fell apparatus for forced respiration with oxygen tube, 1887-1891.

Also a source of oxygenation is an expedient adjunct. The tube from the apparatus connects with a mercury manometer and thence to the intubation tube.

All experimenters have concluded that for the Meltzer-Auer technic a silk-woven catheter 30 cm. long and of a diameter one-half that of the glottis, usually from 22 to 26 of the French scale, serves as the best intubation tube. It should have an opening similar to the rectal tube at the tracheal end, should be absolutely smooth and semi-rigid to prevent it being expelled by coughing or from being compressed while in position.

Its introduction is best accomplished after the preliminary introduction of narcosis by ethyl chlorid-ether or nitrous oxid-oxygen-ether anesthesia.

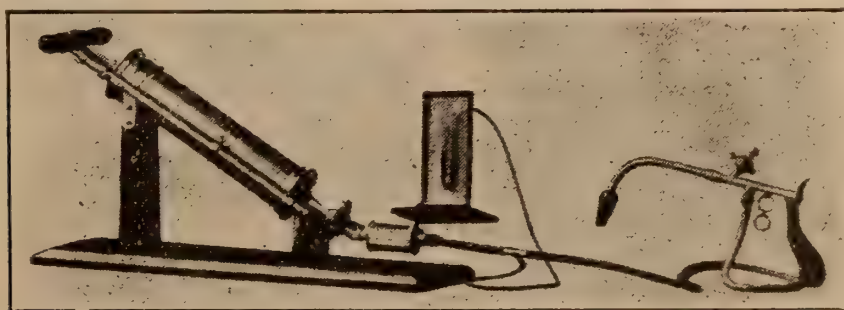


Fig. 12. Later working model of the Matas apparatus.

Intubation is greatly facilitated by means of either the Jackson direct laryngoscope, Fischer's modification of Hayes's instrument, or the introducer devised by Cotton. After the pa-

tient has been deeply narcotized the mouth is opened wide and so held by a gag. The head is well brought forward and the tongue pulled forward by an assistant until the opening of the larynx is brought into view. The metal guide is introduced into the opening and the intubation tube is gently pushed onward until it is seen to pass over the epiglottis into the larynx, after which the metal guide is withdrawn and the tube is pushed further into the trachea until it meets an obstruction, which is either the wall of the right bronchus or the bifurcation of the trachea. It is then withdrawn an inch and is anchored in position to special mouth gags provided for the purpose.

The distance from the incisors to the bifurcation of the trachea is from 9 to 10 inches in the infant, 12 in a child, and about 17 inches in the adult. The glottis in the adult is one-half the distance between the incisors and the bifurcation of the trachea, and Elsberg suggests making the intubation catheter accordingly to insure greater accuracy in adjusting its location.

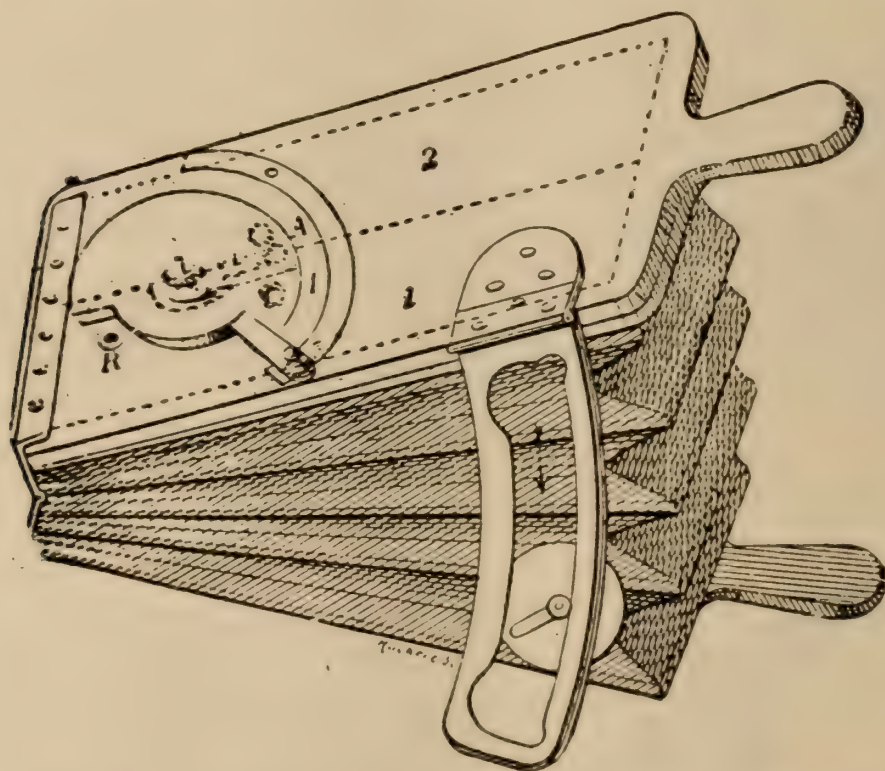


Fig. 13. Doyen's compound automatic hand-bellows for insufflation respiration.

One-eighth to $\frac{1}{4}$ gr. of morphine hypodermically ten minutes before the administration of ether to reduce the irritability of the larynx; or from twenty minutes to half an hour previously when preliminary anesthesia by ether is not resorted to. The induction of narcosis by intratracheal insufflation

produces spasmodic coughing while the patient remains conscious.

With the intubation tube introduced to the correct position air may be heard rushing through the catheter. Spasm of the larynx may now occur for a few moments, but is of no consequence. At this juncture the tube from the apparatus is connected to the catheter with the pressure gauge of the manometer controlling the air supply at 20 mm. and the ether percentage at 50. If the lungs are not kept properly distended by a pressure of from 10 to 20 mm. Hg, the intratracheal tube is either out of position in the right bronchus or is too small and is allowing the air to escape by way of the trachea. In the first instance the tube must be retracted and in the second either a larger tube must be introduced or else slight compression of the trachea around the tube at the jugulum must be intermittently utilized. Too large a tube causes CO_2 accumulation and cyanosis.

Complete muscular relaxation is usually obtained with from 50 to 75 per cent. of ether; and during the course of narcosis the breathing is quiet, respirations are reduced by one-third, the face remains pink, while the veins of the forehead become prominent; the pulse usually remains full, bounding, and regular, the pupils do not dilate, and frequently the corneal reflex is active, so much so that the condition of the patient is rather one of analgesia than anesthesia. Reaction from the anesthesia is so rapid that care must be exercised to keep up etherization throughout the entire operation. The depth of narcosis is controlled by increasing the air pressure and the percentage of ether while at the same time avoiding a condition of apnea, which supervenes at pressures of from 30 to 40 mm. Cyanosis and the accumulation of CO_2 during the operative procedure are controlled by periodic deflation and occasional oxygenation with air. Pure oxygen is dangerous on account of its toxicity when its tension becomes too great, and it is too freely absorbed by the circulation.

At the close of anesthesia, ether is turned off, and pure air, or a combination of air and oxygen, is insufflated under slightly increased pressure to blow out the ether from the trachea and alveoli. Patients come out from under the influence of pulmonary anesthesia by this method almost as soon as the insufflation is discontinued and the tracheal tube removed.

While etherization in association with intratracheal insufflation appears to be the safest form of anesthesia for intrathoracic operations, Boothby, after using the nitrous oxid-oxygen-ether technic, has been favorably impressed with the latter method, and Willy Meyer also suggests that the innocuousness of nitrous oxid may play an important role in con-

serving patients under thoracotomy the additional shock of a poisonous anesthetic agent.

Major Allie W. Williams, U. S. A. Medical Corps, closed his discussion of Dr. Ricketts paper as follows:

In head, neck and chest surgery I feel that intratracheal insufflation anesthesia fills an indispensable place in the practice of surgery in hospitals in the military service.

Cure of Leprosy. Gaceta Medica de Costa Rica, Sept. 15, 1915, Dr. Teodoro Picado calls attention to the Heiser treatment of Leprosy in the Philippine Islands, by which four cases of leprosy have been cured and remained cured for a period of two years. The two first cases were vaccinated at irregular intervals with the antileprous vaccine of Clegg. All four received hypodermic injections of the following:

Chaulmoogra Oil	60.00
Camphorated Oil	60.00
Resorein	4.00

These ingredients are mixed and dissolved by heat over a water bath, and then filtered. The injections are given weekly in ascending doses—the initial dose being 1cc increased to the point of tolerance. There is a great difference in cases as to the quantity of the mixture supported. In some cases very small doses cause fever and cardiac disturbance. In such, it seems better to give smaller doses more frequently. Many authorities have insisted on the necessity of administering strychnine coincidently with the chaulmoogra oil. No strychnine was given in these cases, which is a fact worth noting. Saline purgatives are employed frequently and it is observed that the patients who take prolonged baths recover quicker. Cases treated by the X-rays and by the oral administration of chaulmoogra oil are apt to recur. While chaulmoogra oil is the best drug we have in the treatment of leprosy, it cannot be regarded as a true specific. The treatment is of value in all forms of leprosy—tubercular, anesthetic and mixed. Many cases are cured by it, a great amelioration of all the symptoms is noted in many others, and in nearly all the cases the progress of the lesions is halted.

Poisons Used in Rubber Industry. Bulletin No. 179 of the Bureau of Labor Statistics mentions the following: litharge or lead oxid, sublimed lead or lead oxysulphate, white lead or basic carbonate, red lead, golden sulphid of antimony, aniline oil, carbon disulphid, carbon tetrachlorid, coal-tar benzol, naphtha, gasoline, benzine. Other coal tar or petroleum products are used in certain secret processes.

BUFFALO MEDICAL JOURNAL

A Monthly Review of Medicine and Surgery

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Yearly Volume 71.

JANUARY, 1916.

No. 6

Duration of the War From the Standpoint of Vital Statistics.

Sufficient time has elapsed to indicate with considerable probability that the present European War is, like the Boer War, though for different reasons, to be one of "attrition." Whatever strategic expectation there might have been at the beginning of a brief campaign overwhelming relatively unprepared opponents, has been dismissed. In all past wars, the forces were comparatively small, and armies manouvered in ample space as detached bodies. Psychologically, a whole army was inspired by success or dispirited by reverses. At the beginning of this war, the question was raised whether, under these circumstances, an army could be routed or demoralized as it had in the past. This question seems to have been answered in the negative. Local victories may be won, and superior driving force may affect a whole line. Unquestionably, too, the war will end with the recognition of defeat before an army has actually been reduced to insignificant numbers. But there will be no actual rout, such as occurred at Waterloo, and probably no such lack of material and food as determined the outcome at Yorktown or at Appomattox. Neither does it seem probable that, so far as the main lines of battle are concerned, there will be any such retreats with avoidance of actual hostilities as have marked most previous wars.

The following statistics were compiled from the U. S. census of 1900, for native whites born of native whites, in the registration area, the total population of the series being a little over 3 million. These statistics differ somewhat from those of

the actual population of the registration area, on account of the distortion due to immigration, which increases the proportion of male adults. They probably apply fairly well to conditions existing in the European countries, though they do not exactly represent conditions present on account of differences of birth rate, infantile and general mortality, and emigration.

Under 1 year	2.4%
1-4 years	8.8
15-24 years	18.2
5-14 years	20.6
	50. %
25-34 years	15.1
35-44 years	11.9
45-64 years	16.4
Over 65 years	6.2
Unknown	.4

In any large population, the sexes are nearly equally divided, there being a slight excess of males in territories toward which immigration flows, and a slight excess of females in countries subject to emigration. Indeed, in recently settled territories, the excess of males and of young adults is very marked.

The military strength of a community varies widely according to circumstances. In a small savage or even relatively civilized community, a brief defense against an invading force may conceivably bring into action all but the very young and the very old and the sick and the crippled, without regard to sex. 75 or 80% of the community may thus be reckoned as military forces, and this has been the actual experience in the colonial period of our country, while a close approach to it is noted in several localities during the Revolution. 18% of an average community consists of males over 20 and under 45. Just about 25% represents the entire male portion of the community over 20, with a reasonable allowance for incapacity at ages beyond 45. From these last two numbers must be subtracted those incapacitated at earlier ages, but this subtraction may be balanced by placing the age of military service at 19 or possibly at 18.

Under modern conditions, practically no allowance can be made for female service, such women as are available, even with no regard for sentiment, being required to take the place of men in various occupations and for nursing and clerical duties and the like in connection with the army. Thus, from 17 to 25% of the population is the largest estimate of military force possible. With the present requirements for food, transportation, manufacture of arms, ammunition and

other military supplies, it is scarcely conceivable that these percentages are actually available for direct military purposes, even with the sacrifice of industry, education and everything else, and the utmost utilization of women in positions normally held by men. In the American Revolution, almost exactly 11% of the total population served, beside a considerable number in temporary and informal defense, but the terms of service were for the most part brief, for any given man or unit. In the War of 1812, about 8% of the population served, and in the Civil War, about 11% for the entire, though divided country.

Other experience has shown that a country may maintain its industries and normal life to a fairly satisfactory degree, while putting 10% of its population in the field at one time or another. Considering, on the one hand, the more systematic arrangements for thus conducting the economic life of a nation during a protracted war and, on the other, the greater number of men absolutely required for the maintenance of supplies for military use, it is a reasonable estimate that 15% of the total population may be put into service. About 1-8 of the Union troops died, and more than a sixth of the Confederate. Obviously, however, in a determined contest, without failure of supplies such as really caused the end of the Civil War, the forces might be reduced to the lowest considerable fighting unit before reaching a decision. It must also be considered that nearly 1% of a population will, yearly, be available as the children become mature, and that this number will continue to represent 1% of the original population for say 18 years, before the effect of war on reproduction will become manifest.

It will simplify the problem to consider only the central, Teutonic forces, since their opponents have a considerably larger reserve from which to draw, and since the Turkish and Balkan forces will undoubtedly be engaged in contests on a different field. Germany has a population of about 65 million, Austria-Hungary of about 50 million, total 115 million. Available military strength on 15% estimate, 17 million plus, with annual increment of 1 million. The total losses for the first year, estimated proportionately to reports for the first nine months, in killed, wounded and prisoners, allowing for the return of about half the wounded to the ranks, were about 8½ million. The net loss would be reduced to 7½ million by the increment of boys. At this rate, granted that neither side falls short of ammunition, and that no considerable victory is won by either side, the war must cease by the effects of attrition within three years. It is altogether likely, however, that mutual conservation of men will greatly reduce the losses of all kinds on both sides. Thus as a war of attrition alone,

the present conflict may be protracted for at least five years, and it is, of course, conceivable that the war will not continue to be one of attrition but that new destructive devices or, on the other hand, psychologic tendencies toward defeat or triumph, may develop on either side, so as to bring about a speedier termination.

Certificates as to Extra-Professional Cures.

The popular press is replete with statements, some under oath, as to the reliability of various nostrums. The **Journal of the A. M. A.** has done excellent service in showing up some of these testimonials, for instance in publishing the death certificates of patients advertised as cured of consumption. Some time ago, one of our daily papers published a testimonial from a prominent Buffalo physician whose name was not found in either telephone book nor in the directory and who was not known to any of several members of the profession interrogated. The attention of the editor of the paper publishing the advertisement was called to the matter and it was finally explained that the doctor in question had, some years previously, spent a few months in Buffalo, as an employee of the advertisers.

We suggest that, in each locality, the profession systematically investigate every advertisement of claims of cure by nostrums or any definite attack on the profession itself. By co-operation, throughout the country, definite statements could be met with definite statements and the unfavorable influence of advertising false claims, would be materially checked.

The **BUFFALO MEDICAL JOURNAL** will co-operate with any such professional movement and will endeavor to secure the general co-operation of the medical press.

An Old Fashioned Medical Meeting.

A while ago, such a meeting was held in a large city. It was a home talent evening, with no peasantry growing impatient for the arrival of the recently fed aristocracy and the distinguished speaker from distant parts. There were no statistics, not much pathology, only allusions to surgery, little that could be called original, drugs were mentioned as producing certain results, without scorn or apology for therapeutic faith. Various practical items of observed phenomena and carefully conceived methods of treatment were contributed and, in the free discussion, more facts were elicited and memories refreshed even when nothing brilliantly new was offered. Men left

the meeting stimulated to further observation and study and with hints of much wider applicability than the special subject of the evening's program. We do not wish to be understood as condemning the modern scientific paper, still less as opposing the instillation of fresh ideas from without nor the proper reception of a guest. But, once in a while, let us hark back to the customs of our fathers and have a plain, old fashioned practical medical meeting.

As has been previously stated, the BUFFALO MEDICAL JOURNAL is regarded as, practically, a co-operative professional institution. In gauging the size of the Journal and other factors involving expense, as liberal an estimate is made as is practicable, with reference to income. We would, therefore remind subscribers in arrears that a prompt payment of dues means a better journal. This is true not only in the obvious, business sense, but because the attention to purely business matters necessarily detracts from the amount of time and energy available for the proper conduct of the journal.

THE MEDICAL ASSOCIATION OF CENTRAL NEW YORK has resumed publication of its proceedings, after an interim of several years. So far as possible, sample copies of the present issue are mailed to members not already subscribers to the BUFFALO MEDICAL JOURNAL. Subscriptions should be sent in accordance with the standing notice at the beginning of the editorial department. Dr. Chas. G. Stockton's article on the Treatment of Cardio-vascular Renal Disease was contributed independently of action on the part of the Association and was published in the December issue. Subscriptions may date from that issue, if desired, and will be filled in order, up to the limit of copies available. The stenographic minutes of the meeting will be printed within the next few issues. Certain of the original matter on the program is reported as not available for publication, either because papers were not prepared at all or because the material was presented in a form that could not be reduced to writing. The Journal can guarantee only that matter will be published as promptly as possible subject to submittance by authors. While the Journal welcomes this opportunity to extend its usefulness as a professional medium for Western New York, it does not in any sense seek it to further its own welfare, even indirectly. Thus, it should be emphasized that subscription is absolutely voluntary and that no further solicitation of subscriptions will be made.

BOOK REVIEWS

Books mentioned may be inspected at and ordered through this office. So far as possible, books received in any month will be reviewed in the issue of the second month following.

Zeitkinder, Dr. Henry Jones Mulford, of Buffalo, author and publisher, 107 pages, \$1.00.

While this play is described as one to be read, the difficulties of the role of the infant and small child do not appear insuperable for the stage or the film-drama. As the work is pre-eminently one with a purpose, we hope that this purpose will be given wide publicity by such actual dramatization. The story is of a modern city child, with a sensible father yielding, as most of us do, to feminine authority in domestic matters and a pretty, somewhat foolish mother. This combination would not be so bad were it not for the maternal grandmother, superstitious, over-confident and sceptic of medical skill, who is abetted by adult friends of the superficial society type, inclining to osteopathy and somewhat hostile to medical authority. One of our patients once said: "Doctor, my wife is a —— fool. Any woman who is any good is a —— fool." While not agreeing with this dictum in its extensive meaning, it contains a germ of practical wisdom. The medical plot of the story is a series of minor neglects and lack of wisdom, culminating with death from septic meningitis after otitis media. The real hero of the story is Dr. North who does not make "the fatal mistake of being polite to his patients" but who is a sincere, skillful practitioner. We are disposed to take issue with him as to the unhygienic conditions of the better residence district of a city, as to the wisdom of sending a small child who has the tendencies noted to the country, and as to the policy of keeping normal children out of school till the age of 8 or 10. Of course, in particular conditions of a real case, all of these objections might be contrary to the interests of the patient but we have reference to the general inferences which the public will naturally draw.

The date of birth of the child, Hallowe'en, affords the opportunity for developing the superstitious side of the mother and grandmother and for a prologue in which Dr. North, walking home after a break down of his car, encounters Lucifer, and imps of Ignorance, Selfishness, Doubt and Crime, conspiring against the child. This personification seems to us a particularly strong point of the play, as tending to convince superstitious persons of the truth back of their notions, though Dr. North subsequently alludes to the scene as a dream.

37th and 38th Annual Reports of the Charity Organization Society of Buffalo, 1915.

This large pamphlet gives in detail, a description of the various activities of the C. O. S. and a financial statement which indicates the ultimate economy of this form of charity and the urgent need of support.

Annual Report of the Department of Health of Los Angeles.
Year ending June 30, 1915.

While the activities of the Health Dept. do not differ materially from those of other well organized cities, it should be recognized that, in this instance, there has been the difficult factor of adjustment to a very rapid growth of population. From 1890 to 1902, there was a very gradual increase—for some years indeed, a decrease—from 80,000 to 100,000. From this time, the city has increased fivefold, to about 500,000. Tuberculosis has been a marked evil. 17.43% of all deaths occur from this disease or 2:1000 of population. This is about $1\frac{3}{4}$ times the tuberculosis problem with which the average eastern city has to deal. A favorable item is that the deaths from this disease have not increased as fast as the population although the cases have increased more rapidly. That tuberculosis is mainly an introduced factor is apparent from the fact that, among 1000 deaths, in the year, only 111 were of natives of the city and only 27 of natives of the state. We note also that 24 cases of small-pox occurred, with no mortality. Of these, 14 had never been vaccinated and 3 more never till after exposure, while 7 had not been vaccinated since infancy. The general death rate was only 11.47:1000 population, though the qualification that this ratio is based on an estimated population of 500,000, leads us to think that the Health Dept. shares to some degree the general scepticism as to the actual degree of growth of the city.

Medical Directory of N. Y., N. J., and Ct., 1915, published by the Medical Society of the State of N. Y.

This directory, now in its 17th volume, is one of the most valuable activities of the State Society. The present volume is bound in stiff paper and is slightly smaller than former editions. The number of physicians in the state has increased somewhat but has declined relatively to the population. In 1910, 13,474 physicians were listed, a ratio of 1:676.3 of the 9,113,000 population. This year the physicians number 14,156, a ratio of 1:692.3 of the 9,700,000 population.

Physicians' Visiting List (Lindsay & Blakiston) for 1916, 65th year. P. Blakiston's Son & Co., Philadelphia: for 25 patients per day or week, \$1.25; for 100 patients \$2.50; also prepared for 50 and 75 patients.

Medical Record Visiting List for 1916, Wm. Wood & Co., N. Y. for 60 patients.

Both of these visiting lists are neatly bound, with pocket and pencil and contain a large amount of information useful in emergencies. We are strictly neutral in regard to them, both being admirably adapted to their purpose.

Transactions of the American Otological Society, 48th annual meeting, Niagara Falls, Ont., June 3 and 4, 1915. Vol. 13, Part 3. Published by the Society. Mercury Pub. Co., Printers, New Bedford, Mass.

Copies may be secured from the Secretary Dr. John B. Rae, 247 W. 70, N. Y. This contains lists of members and officers, minutes of the meeting and a collection of valuable papers some illustrated.

Progressive Medicine, a quarterly digest of advances, discoveries and improvements in the medical and surgical sciences. Edited by H. A. Hare and L. F. Appleman, Philadelphia. Published by Lea & Febiger, Philadelphia, \$6 per annum.

This volume deals with the Digestive Tract, Kidneys, G. U. diseases, various Surgical problems and ends with a Practical Therapeutic Referendum.

The Medical Clinics of Chicago. Volume I, Number III, (November 1915). Octavo of 200 pages, 23 illustrations. Philadelphia and London: W. B. Saunders Company, 1915. Price per year. Paper, \$8.00. Cloth, \$12.00.

Anatomy of the Brain and Spinal Cord, with Special Reference to Mechanism and Function. Harris E. Santee, M. D., Ph. D., Chicago. P. Blakiston's Son & Co., Philadelphia. 5th edition, 474 pages, 158 illustrations, 46 in colors, \$4.00.

In each region, the description passes from gross anatomy to neurons, the relation of the anatomy to physiologic function being always kept in mind so that the arbitrary nature of anatomic study is minimized. Embryologic development is included wherever it will assist in the comprehension of the adult forms, the special embryologic chapter included in previous

editions, having thus been distributed throughout the work. The work has also been brought up to the most recent discoveries. The Basle Nomenclature of Anatomy has been followed almost without exception.

The Nose, Throat and Ear, their Functions and Diseases. Ben Clark Gile, M. D., Philadelphia. Published by P. Blakiston's Son & Co., Philadelphia. 456 pages, 131 illustrations, 8 in colors, \$2.75.

The epigrammatic sub-title "A Treatise upon the Breath-Road, Food-Road and Accessory Organs" is worth noting. While the general arrangement of the work does not differ much from accepted standards, the same epigrammatic emphasis of facts is found throughout. The final chapter on Deaf-Mutism, though brief, is exceptionally interesting.

The Practical Medicine Series, 10 volumes on the year's progress in medicine and surgery, under the general editorial charge of Charles L. Mix, A. M., M. D., Chicago; The Year Book Publishers, \$10.00 for the series.

Vol. 6, General Medicine, edited by Frank Billings, M. S., M. D., and J. H. Salisbury, A. M., M. D., Chicago, 359 pages, \$1.50 separately.

Vol. 7, Obstetrics, edited by Joseph B. DeLee, A. M., M. D., and Herbert M. Stowe, M. D., Chicago, 230 pages, \$1.35 separately.

The books of this series are well illustrated and are indexed by topics and authors, with references to periodic literature in foot notes. On the whole, it is the most complete and most satisfactory review of medical literature published.

Municipal Ordinances, Rules and Regulations Pertaining to Public Health. Reprint No. 273 from Public Health Reports.

This is a compilation made under the supervision of the Surgeon General of the U. S. P. H. S. and contains ordinances, etc., adopted during 1914 by cities of the U. S. having a population of 10,000 or more in 1910. Aside from its immediate and direct value, the size of this book (650 pages), the repetitions, omissions and inconsistencies as we compare the ordinances for different places, point clearly to the desirability of unified and centralized authority for this country.

SEVENTY YEARS AGO**Abstracts From Buffalo Medical Journal, 1846.**

Vaccination After Exposure to Small Pox. Danger of Humanized Virus. Dr. Samuel Salisbury, Jr., Boston M. & S. Jour., mentions a woman who sat for half an hour at the bedside of a friend with small-pox. She went immediately to a physician and was vaccinated. (Evidently lay propaganda were not unknown in those days). The course of the vaccine disease was regular, save for considerable fever and constitutional symptoms on the 8th and 9th days but she developed severe small-pox on the 18th day. Not knowing of her exposure, virus taken from her arm on the 8th day, was used by another physician for vaccinating 2 adults and 5 children. Of the adults it is known only that they did not develop small-pox. None of the 5 children had been vaccinated previously and all had a typic vaccination. Three, however, subsequently had mild small-pox. Dr. Salisbury holds that the small-pox was communicated by vaccination and not by accidental conveyance of infection. (While the use of humanized virus is no longer necessary or desirable, there remains the live issue, not only with regard to variola but to infections generally, whether prophylactic vaccination should be performed after exposure. Many of the older authorities advocated this practice, under the conception that the variola and vaccinia, so to speak, ran a race, in which the milder infection might win. The editor, presumably Dr. Austin Flint 1st, himself, cites two cases of vaccination after exposure, which protected against small-pox, or, at least, in which small-pox failed to develop).

New Test for Bile and Sugar. This is the well known Pettenkoffer test abstracted from *Annalen der Chem. & Pharm.* To a little of the suspected liquid in a test tube, $\frac{2}{3}$ its volume of strong sulphuric acid is added drop by drop to avoid excessive heat which would decompose choleic acid. 2-5 drops of 5 parts of sugar to 4 of water are added and the mixture shaken. A violet red color indicates bile. The sulphuric acid must be free from sulphurous acid and the temperature must remain under 144 F. The reversal of the test is suggested for diabetic urine.

Physicians in London. Mitchell's Directory is quoted as listing 2,157; 330 physicians, 245 surgeons, 1,582 general practitioners.

Arsenical Antidote. It is stated that the hydrated peroxid of

iron acts only when uncombined acids of arsenic have been taken and does not fix Fowler's solution. The peracetate, with excess of peroxid of iron is recommended. M. Duplas, Phil. Mag.

Pain in Operations. Alf. A. M. Velpeau, *New Elements of Operative Surgery*, 1st Am. Ed. (Book Review). "To avoid pain in operations is a chimera. Neither opium, lettuce, hellebore nor rue are any more capable to 'lenify the pain' than infusions of lapis or the sympathetic powders of Digby."

Entrance of Air Into Veins. Of 40 cases analysed by Velpeau, this accident was considered probable in 10, uncertain in 8, extremely probable in 2, almost certain in 3. The rest could not be judged from the details reported.

Beginning of the A. M. A. The National Medical Convention was held on May 5, 1846, at the University Medical College, New York, agreeably to appointment by the State (of N. Y.) Medical Society. About 100 delegates, representing 16 states (there were then 29, including Florida, Texas and Iowa, recently admitted) were present. Committees were appointed to report to the next meeting in Philadelphia, May, 1847, and the session adjourned at the end of two days.

Latin Prescriptions are Considered Absurd. "The sooner the profession is stripped of all remnants of affectation and mystery, the better."

Dr. F. H. Hamilton's Series on An European Tour, mentions seeing the collection of Surgeon's instruments and the surgeon's house, at Pompeii; also the druggist's house and baths.

A Case of Extrauterine Foetation in a woman of 32 who had had one child 10 years previously, is reported by Drs. M. Bristol, attendant and A. S. Sprague, operating surgeon. Operation was performed but the patient died of septic peritonitis.

Atropine. According to Novak, atropine is very effective in the treatment of dysmenorrhea. In the *Wiener Klinische Wochenschrift*, he reports 38 cases treated with this drug, in 30 of which the pain was reduced to a negligible quantity, or cured completely, with atropine. He gives the drug by mouth or rectum.

SOCIETY MEETINGS

Brief reports and announcements of meetings of societies of Western New York, and those of general scope, are requested from Secretaries. Copy should be on hand the fifteenth of the month. Full transactions will be published at cost of composition.

DOCTOR: Is your Society properly represented here? If not, please bring our standing announcement to the attention of the members.

The American College of Surgeons has secured from its Fellows an endowment fund of \$500,000, to be held in perpetuity, the income only to be used. The College, which is not a teaching institution but rather a society or a college in the original sense, now lists about 3,400 Fellows in Canada and in the United States. Without precedent for swiftness of development it stands today a powerful factor both in the art and in the economics of surgery.

1. Since the whole problem of the training of specialists for the practice of surgery is the primary purpose of the College, the Regents propose at an early date to present a clear conception of the College to the undergraduate medical students of this continent. The Regents, further, will ask each senior who has in mind to specialize in general or any branch of surgery to register with the College. As these students, then, serve later as internes and as surgical assistants, they will be requested to report these facts. The College, in turn, will systematically seek information as to the ability and character of such men; and the information thus obtained becomes the basis of admission to Fellowship in the College. In addition to this procedure, the Regents will insist upon the proper keeping of case histories, and they will endeavor to stimulate in these men in training right ideals of medical practice. In this program they ask the active co-operation of the faculties of the medical schools and of all practitioners of medicine.

2. Inasmuch as proper training in surgery is inseparably involved with the conduct and efficiency of hospitals, the College will seek accurate data on all matters which relate to hospitals. From time to time it will publish studies upon hospital problems, the purpose being always to be helpful to the hospitals. These publications, further, will inform recent medical graduates as to where they may seek adequate general or special training in surgery. To be concrete the College will deal with such problems as (a) the proper equipment for medical diagnosis, e. g., well equipped laboratories for chemical, pathological, and X-ray work; (b) the proper forms for case histories and the facilities for keeping these records; (c)

the management and the curricula of the nurses training schools; (d) the specialization essential in any well organized hospital.

3. The College will ask the faculties of medical schools to consider the advisability of conferring a supplementary degree of proficiency in general surgery and in the various specialties of surgery.

4. The College will issue readable monographs, educational in nature, to the press, to the general public, to hospital trustees, and to the profession of medicine upon subjects of medical procedure and the whole meaning of fitness to practice surgery.

The Buffalo Academy of Medicine has held the following meetings since our last report:

Section of Pathology, Nov. 24, Symposium on Diseases of the Kidney: Etiology, John L. Butsch; Histologic Pathology, Wm. F. Jacobs; Clinical Pathology, T. B. Carpenter; Symptomatology, De Lancey Rochester; Treatment, Nelson G. Russell. (Note—Several of these papers have been promised for future publication.)

Section of Surgery, Dec. 1, Symposium on Back Ache: Medicine, Allen A. Jones; Surgery, Frank W. McGuire; Orthopaedics, W. W. Plummer; Gynaecology, James E. King; Neurology, Jas. W. Putnam.

Section of Medicine, Dec. 8, Nature and Properties of Various Kinds of Rays, T. F. Cooke, M. E.; Duodenal Diseases, Henry C. Buswell. (Note—These papers have been promised for future publication.)

Section of Obstetrics and Gynaecology, Dec. 15, Abuse of Forceps, P. W. Van Peyma; Indications for the Use of Forceps, N. Kavinoky; Discussion opened by Irving W. Potter and Wm. T. Getman.

The American Society for the Study of Alcohol and Other Narcotics held its 45th annual meeting in Washington, Dec. 15 and 16. A large number of papers were presented, mostly dealing with the pathology of alcohol, as well as with sociologic and legislative details. Methyl alcohol and tobacco were also included in the program.

The Medical Union held its regular dinner and meeting Dec. 15, at the Sanatorium of Dr. Geo. H. McMichael of Buffalo, Dr. McMichael being the host. The members were much interested in the equipment of this new location of Dr. McMichael's establishment for the treatment of inebriety and drug addiction. The following officers were elected: Dr. George H. Westinghouse, president; Dr. George H. McMichael,

vice president; Dr. A. W. Bayliss, secretary and treasurer. Dr. John C. Thompson read a paper on Mouth Infection and Prophylaxis, which was well discussed.

The Rochester Academy of Medicine held a section meeting, Dec. 8, at which the following program was presented: Methods of Examination in Gastro-Intestinal Diseases, Wm. V. Ewers; Value of Chemic Analysis of Gastric Contents, Nathan W. Soble.

A regular meeting of the Academy with Section IV was held Dec. 18, at which nominations were made and other business transacted.

The Medical Society of the County of Chemung held its annual meeting Dec. 21. Beside business which has not been reported, the retiring president, Chas. F. Abbott gave an address and Ross G. Loop presented a paper on Diagnostics of Certain Surgical Lesions of the Kidneys.

The Niagara Falls Academy of Medicine met Dec. 13, at 9 o'clock in the parlors of the Hotel Imperial. Dr. A. M. Rooker and Dr. Oscar Baer entertained. Dr. Irving W. Potter of Buffalo was the speaker, his subject being Operative Obstetrics with Special Reference to Vaginal and Abdominal Cesarean Section.

Medical Association of Central New York.

Forty-Seventh Annual Meeting of the Medical Association of Central New York, held at the Home of Rochester Medical Association, 33 Chestnut St., Rochester, N. Y., October 21, 1915, 10 o'clock a. m.

Meeting called to order, Dr. Charles O. Boswell, president, in the chair. The president read his annual address to the association.

Dr. Joseph Roby, of Rochester, read a paper (by invitation) entitled: "Therapeutic Uses. Human Blood Serum."

DR. ROBY: I believe in closing that this new product of mercurized horse serum—I have not had any experience with it—but I think it is a dangerous product to use, especially to use intra-venously. I do not see any advantage over bichloride of mercury. I would much sooner put the bichloride of mercury into the patient than horse serum. As to putting the horse serum in the cord, I think there is the same danger,—I mean, mercurized horse serum. Unquestionably, even after the use of spinal serum, there is an inflammation set up in the cord, and I believe mercurized horse serum would be just as apt to set it up, especially as it is used for the especial purpose of setting up an inflammation of the

cord, and the obtaining of human serum is a very simple and easy process.

THE PRESIDENT: Gentlemen, this very interesting and suggestive paper of Dr. Roby's is now open to you for discussion, and I hope that all the members here will feel at liberty to join in the discussion as far as they care to. It will, however, be necessary to have a time limit placed upon the amount of discussion, and the Secretary will make a motion to that effect.

SECRETARY BUETTNER: I move you, Mr. President, that the discussion be limited to five minutes for each person.

Motion seconded. Carried.

THE PRESIDENT: I will start the discussion by asking Dr. Hennington, who has had some experience with blood transfusion, to open the discussion.

DR. HENNINGTON: I did not realize that I might be called upon. My name has been associated with the old surgical method of doing transfusion, and I have seen these various new methods, and I would like to go on record as being convinced that probably the citrated blood method will take the place of all these other methods. It is possible that in a very massive transfusion that the old surgical way might still have its place, but in these diseases where you wish to get whole blood frequently, that is, every week or two weeks, or even at longer intervals, that the surgical method is too complicated to apply it. I think that Dr. Roby is to be very much complimented in his introducing this citrated method in Rochester, and I only fear that in a very short time everybody will be doing it.

THE PRESIDENT: Dr. Ross, will you take part?

DR. ROSS: (Toronto) I have been very much interested in this method for the past six or eight months, and I think Dr. Roby's exposition of it has been most complete and most interesting. I quite agree with the Doctor about the citrated method. I think it will take the place of all other methods. We have chills, and they are objectionable, of course, but I do not think they are serious if the proper technique is followed. With respect to this most interesting case of Dr. Roby's, I have one almost identical, although even worse. His blood was as low as fifteen per cent. Blood cultures were negative. The red blood cells were under a million. I feel quite certain it was not primarily pernicious anaemia. I have obtained positive strepto-coccus blood cultures in three cases,—indeed, in all the cases I have tried in the last six months. I agree with Dr. Roby that pernicious anaemia is due to infection, and I think his suggestion that the spleen may be harboring it is correct. Nevertheless, pernicious anaemia is so distinct that sometimes I find it difficult to think the strepto-coccus

is responsible. I once more must express my appreciation of Dr. Roby's most excellent paper, and also for your kind opportunity to me to speak.

THE PRESIDENT: Is there any further discussion? Dr. Jones, do you want to say anything on Dr. Roby's paper on using blood serum?

DR. O. E. JONES: I was not fortunate enough to be here, so that I do not know anything about what Dr. Roby's paper was; only, I have seen some of the results of Dr. Roby's transfusions, and the effects have been extremely gratifying. The patients have improved in general appearance and the physical condition is very much benefitted, so that one patient in particular, who was in rather an extreme condition, unable to scarcely be about, could walk with only the assistance of a cane and leaning on some one's arm, and now is able to do the work on his farm.

THE PRESIDENT: Is there any further discussion of Dr. Roby's paper? If not, I will ask Dr. Roby to close the discussion.

DR. ROBY: In reading my paper I did not thank these different men who referred the cases to me, and I desire to do so. This man who was in here a few moments ago was Dr. Jones' patient. Dr. Jones has been rather waiting, but he is getting along all right now. I do not doubt what Dr. Ross says, that when essential pernicious anaemia is established, blood transfusion probably won't do them any good, but one of the points I was trying to make is that we should get to using transfusion in the early cases. Many of these cases are simple anaemia. There must be a beginning of all these cases. There must be a stage of the game when the spleen is quite small, and it must be so with pernicious anaemia. They do not suddenly get a run of temperature of 103 or 104. They must get there gradually. I believe that like all other infectious diseases, if you can get hold of diphtheria early you can cure your case. The same way with tetanus. If that is taken early you can do something. With cerebro-spinal meningitis the serum is of very much more value early in the game. That was one object of my plea that in these cases of simple anaemia, or apparently simple anaemia, when, after giving a trial of iron and arsenic and fresh air and rest they do not improve, that I believe they ought to be transfused. I have not said anything about the method. The method we have been using here is the citrate of soda method. In one of the late journals the citrate of soda got rather a black eye. I don't remember the name of the author of the article. I think all three of his cases acted badly. We have treated twelve or fifteen cases with citrate of soda, and with no bad results at all.

DR. HOWARD L. PRINCE, of Rochester, presented a paper

entitled: "Place of Bone Graft in Surgery (with lantern slides).

THE PRESIDENT: The paper of Dr. Prince is now before you for discussion, and I hope any one here will feel at liberty to open the discussion. Dr. Howk, will you discuss the paper?

DR. HOWK, (Rochester): I have seen some of the results of Dr. Prince's work, and they have all been highly satisfactory. I think that his ability to deal with these cases leads many of us to refer our cases directly to him. In fractures and in diseased conditions of the bone his technique is so far superior to anything that we can indulge in that it seems to me well to give him the opportunity of taking care of them.

DR. SEELYE W. LITTLE, (Rochester), read a paper entitled: "Ductless Glands of a Typical Growth."

THE PRESIDENT: Gentlemen, this discussion on this most suggestive and interesting paper of Dr. Little's will be postponed for a few minutes until Dr. Ross is able to demonstrate to you the use of the diarsenal. The preparation has been made and should not oxydize too long, and the patient is getting nervous.

Dr. Ross demonstrated the use of the preparation referred to.

The President called upon Dr. Stockton, of Buffalo, to open the discussion on Dr. Little's paper.

DR. STOCKTON: Mr. President and Gentlemen: I feel that this is an honor which I am unable to fully justify, to reply to the very thoughtful paper of Dr. Little. There is so much in this paper that challenges one's thought that I feel that no one could attempt a full discussion of it without study of the paper. I do not know what to say to Dr. Little's theory. I think, however, that he saves himself, because he does not stop with theories, he says that it works. Now, if the pragmatic side is sufficient, we are to be congratulated in having this new thing brought before us, regardless of the reasons therefor. It seemed to me that all of the various discussions as to the nature, the possible nature, of the cause of cancer have been faulty, in the fact that they have not been able to show results, and for my own part, most of the theories that have to do with the behaviour of embryonic cells in this extraordinary manner are connected with one well known fact in biology, and that is, it would seem that this disturbance of embryonic cells, to make this extraordinary growth, must be a very widespread influence, since we find cancer in all mammals and all vertebrates, and it is not, perhaps, going too far to find that similar growths occur in the vegetable world. When one realizes this fact—and there are many who believe that that statement is a fact—it seems strange that we have to explain the development of these growths and this stimulation of the

embryonic cell through the action of some kind of internal secretion. I do not want Dr. Little to understand that I am trying to combat his statement. I am not. On the contrary, I am very much interested, but I am trying to have him in his reply satisfy some of the objections that arise in my mind, to not only his theory, but all the theories that I have especially heard brought forward for the origin of cancer except by the action of some external agent. I cannot understand, sir, how it is that there can be any common defect in our own natural nutrition which would extend through such wide ranges of animal life, through so many families, which should not have been long ago weeded out, long ago extinguished through the action of natural selection. If there is a cause that produces a definite effect like cancer, and a thing which extends through so many families, it must be a thing of the earliest possible origin, it must go back to the very beginning of animal life. Now, it seems to me that a thing so definitely detrimental to the development of animal life, if it depends upon one of those defects, would have been excluded by Darwin's law long ago. I am very much interested in seeing the Doctor's actual demonstration, and from which he implies that he has seen good results from this treatment. I think that is worth more than we can all say, and if this study of the internal secretions has led him to a view which in part will produce good results, I think that is admirable and he is to be most heartily congratulated.

DR. BENEDICT (Buffalo): Mr. President, there is just one thing I would like to call attention to in this matter, and that is, I think we can say that the one fact definitely shown with regard to the etiology of cancer is that it occurs most frequently with advancing years. As I remember it, the maximum is about eighteen per cent for women of about the age of fifty-five to sixty, that is, eighteen per cent of all deaths at that age; about ten per cent less for men. There is really no sexual difference, if we allow for the fact that the female has two vulnerable organs, the uterus and the breast, which are not present in a male. Now, in spite of this fact that age seems to be the point in the etiology of cancer that we can all agree upon, and that is established by statistics, there are certain curious fallacies. One is, that the incidence does not increase as age increases, that is, as we pass the point, of about sixty for women and about fifty-five for men, the incidence goes down, and in very advanced ages we find that the relative number of deaths from cancer is only about that which we find at twenty-five to thirty years of age. Here we have an apparent cause, but increasing the cause does not increase but rather decreases its operation. Now, in another respect let us analyze; take the different things which we say make up old age, or,

regard the matter in the very superficial way, do our cancer patients look old? Are they old for their years? Now, in my observation, as a rule they are not. I would not say that cancer occurred in people who apparently had not reached their actual age, and, on the other hand, I think we can say that senility relative to actual age is not a particular cause of cancer. Neither do we find cancer in patients in which we can pick out any one factor of old age, as, for instance, a tremor, or a condition of the arteries, or grey hairs, or any other one indication of age. Now, there is a curious paradox that occurs to me, that Dr. Little may have put us on the right track by saying that age is a factor in the etiology of cancer only because it gives chances for something else to develop. The old saying is that the pitcher that goes too often to the well is broken, and the person who keeps on living will develop these causes if he has time. I think we ought to bear these facts in mind and check them off in our experience. I for one am deeply indebted to the essayist for this point he has given.

DR. LITTLE: I had rather hoped there would be bitter criticism. I did not read the table at the time. Some of these points have been met at that. For instance, cancer occurs practically universally in the animal kingdom,—maybe in the vegetable kingdom; that is doubted; I would say also that the ductless glands occur universally in every creature, so far as is known, that has cancer. Ductless glands are a very early development biologically, and they increase with the specialized tissues.—The defect should have been eliminated by natural selection: It would have been, according to the theory, eliminated by natural selection, except for the fact that civilization—By the way, cancer increases as the complexity of civilization increases—it would have been eliminated by natural selection, but we are deliberately engaged in our business as physicians in trying to go counter to natural selection, and we keep alive all the defectives we can, in every way. Further, the more highly specialized we become the more depends, according to the theory, on the ductless glands, which have a specializing function. Therefore, it will not be eliminated by natural selection, granting that the theory be true, until they get specialized so far that many of us fail, and more and more are failing all the time in this particular respect. I thought the last speaker was going to jump on me in regard to the odor we got. Both those points are mentioned in this table of cancer on one side and ductless glands on the other. For instance, the age incidents of cancer are well known, middle age especially, and after. As a person gets older ductless glands, or anything else, fail. If ever, that is the time they are going to fail. It is rare in the young, but it is very rapid when it does occur in the young, naturally. In the young of

the ductless glands it must be more serious than in the old, because metabolism and growth are most active and the ductless glands are more active. Diabetes is another illustration. Diabetes in the young is, in the result, much more serious by far than diabetes in the old. We have old looking patients. A cancer patient—I think that is perfectly true—take them just as they come, they do not look any older than their years. That is nothing. That does not prove that their ductless glands are older than they ought to be. All this whole subject of ductless glands is recent, and there is one very great proof that I lack and I cannot get, and there is no reference to it in the literature, and that is autopsies. I would like to get an autopsy on every patient that dies of cancer in Rochester, with reference to the ductless glands. If I could get that, and if it showed right straight along, it would be fairly valuable. I have only a few and those are positive. I have a patient with cancer of the skin, perfectly operable. He declines and says he will die with it. He came to me because he knew I had a cure for cancer. I told him he was mistaken, that I would try him for a little while, and if the thing got worse I would decline to have anything more to do with him. He got better and it disappeared, and we stopped the medicine. He came back in about three or four months with the cancer back again. We started again and it went away. That is all I can say. The Lord knows what is going to happen to that man. I don't yet. The Doctor says I say it works. Sometimes. Most times not, but there is enough for me—I am one of these faddists—there is enough for me to be positive that there is some relation between those things. I have seen it too many times.

(To be continued in next issue).

Medical Society of the County of Erie.

The 94th Annual Meeting of the Medical Society of the County of Erie was held on December 20th, 1915, at Townsend Hall, 25 Niagara Square, Buffalo, N. Y.

President Hurd called the Society to order at 6:30 p. m.

President Hurd announced that the annual election of officers would be held at this meeting and called for any further nominations to those which had already been made at the regular October meeting. On motion of Doctor Hopkins nominations were declared closed, no further nominations being made. The motion was carried.

President Hurd then appointed the following tellers: Doctors Woodruff, Sharp and Lytle.

Treasurer Lytle submitted his annual report, which showed the number of members in good standing as 647. Number of members who died during the year 4. Number resigned 0. Removed to other counties 4. Retired 4. Number of members

in arrears with their dues 79. Total receipts during the year was \$3426.07. Of which there was a balance on hand of \$1514.00, the remainder having been paid in dues to the Medical Society of the State of New York and for current expenses. The Treasurer's report was adopted.

The Secretary then read the minutes of the regular meeting held October 18th, 1915, and also the minutes of the Council held December 18th, 1915, both of which were adopted as read.

Doctor William F. Jacobs, Chairman of the Committee on Membership reported favorably upon the following list of applicants, each of whom were separately ballotted for and elected: Dr. Albert A. Gartner, 715 Broadway; Dr. Carlton E. Wertz, 1440 Jefferson street; Dr. Frank Kruse, Moses Taylor Hospital; Dr. Herbert E. Wells, Lackawanna, N. Y.; Dr. Herbert H. Bauckus, 113 High street; Dr. August Lascola, 539 Michigan avenue; Dr. Baldwin Mann, 815 Auburn avenue; Dr. John Ludwig, 522 Best street; Dr. Arnold H. May, 177 Walnut street; Dr. Harvey P. Hoffman, 1451 Jefferson street.

President Hurd expressed the thanks of the Society to Chairman Jacobs for his activity in securing new members during the past year.

Reports of officers were then called for.

Doctor John D. Bonnar, Chairman of the Board of Censors presented the report of the Board and also that of the Attorney, Mr. Alfred L. Harrison. An interesting feature of Chairman Bonnar's report was that among the persons prosecuted for the illegal practice of medicine was a Chiropractor, who was fined \$25.00, which the Censors considered as establishing a precedent or record, this being the first conviction. Doctor Bonnar was given a vote of thanks for his activity during the past year.

Doctor Henry R. Hopkins, Chairman, Committee on Public Health, submitted his annual report, which was a sort of review of the activities of this Society in the matter of securing better medical education and a higher medical standing. In 1871 the Medical Society of the County of Erie began the first agitation, which finally resulted in passing a State law in 1891 requiring a State license for the practice of Medicine. Doctor Hopkins' report then went into economic, hygiene, and other conditions, and ended by submitting the following resolution:

RESOLVED, that the Medical Society of the County of Erie, State of New York, hereby makes record of its conviction that to Americans the subject of Forestry is a matter of enormous vital significance; that to the medical profession of America the subject should appeal as to no other group of our citizens; that record should be made and repeated by medical societies, county, state and national, urging upon those in authority the

importance of the most intelligent study of this question of Forestry to the end that suitable action by our governments, state and national, be taken in this our most vital problem.

RESOLVED, that these resolutions be transmitted under the seal of this Society to the Medical Society of the State of New York, with the request that the same receive due consideration and if approved that the matter be brought to the attention of the American Medical Association at its next meeting.

Resolutions as submitted were adopted and the entire report was then approved.

President Hurd expressed the appreciation of the Society to Doctor Hopkins for his valuable report.

Doctor John B. Woodruff, Chairman of the Committee on Economics then submitted his annual report. This was the first report since this committee was created. It was a very exhaustive resume of contract practice in this City of which more than 230,000 people are obtaining medical service at a nominal cost of \$1.00 per year. The report was adopted with the thanks of the Society.

On motion of Doctor Bonnar the polls were declared closed and the tellers then presented the result of the ballot, by which the following were declared duly elected:

President—Doctor Franklin W. Barrows.

First Vice-President—Doctor Irving W. Potter.

Second Vice-President—Doctor John C. Thompson.

Secretary—Doctor Franklin C. Gram.

Treasurer—Doctor Albert T. Lytle.

Censors—Doctor John D. Bonnar, Doctor Francis E. Fronczak, Doctor Arthur G. Bennett, Doctor Archibald D. Carpenter and Doctor Frank A. Valente.

Chairman, Committee on Legislation—Doctor Harvey R. Gaylord.

Chairman, Committee on Public Health—Doctor Nelson G. Russell.

Chairman, Committee on Membership—Doctor William F. Jacobs.

Chairman, Committee on Economics—Doctor John V. Woodruff.

Delegates to the State Society—Dr. Arthur G. Bennett, Dr. Albert T. Lytle, Dr. Julius Richter, Dr. Franklin W. Barrows.

The President then called President-elect Barrows to the chair and read his annual address.

The Presidential address was a resume of some of the most important progress in scientific medicine.

The thanks of the Society was tendered the retiring President after which the meeting adjourned.

TOPICS OF PUBLIC INTEREST.

County Tuberculosis Hospitals. From information supplied by the State Charities Aid Assn., we learn that recent additions are as follows: Jefferson Co., \$25,000 appropriated supplemental to previous appropriation of \$15,000, site purchased, hospital to be built within a few months. Rensselaer Co., \$150,000 appropriated for 120 bed hospital, site selected, construction will probably begin in spring. Present institution on alms house farm filled to capacity, not satisfactory, and usually has a waiting list. Chenango Co., \$20,000 bond issue authorized, site selected. Niagara Co., \$100,000 voted. Rockland Co., \$50,000 voted. Steuben Co., \$30,000 voted. Herkimer Co., \$25,000 voted. Chautauqua Co. has accepted a gift of \$150,000 for a tuberculosis hospital. Outside of New York City, 32 counties now have tuberculosis hospitals in operation or assured for the near future. The 25 remaining counties have rather sparse populations and most of them are so hilly or mountainous that proper accommodations for tuberculous patients could easily be improvised.

Diminution in Mortality. The Bureau of the Census states that the death rate for 1914 in the Registration Area was 13.6: 1000 population, the lowest recorded. The average, 1901-05 was 16.2 and for 1906-10, 15.1. Still more favorable results would be shown if the Registration had remained as it was.

Incomes. A slight diminution occurred in the number of persons paying income taxes in 1914 as compared with 1913: 357,515 as compared with 357,598, but the total amount paid was \$16,559,000 as compared with \$12,728,000. It is perhaps unfortunate that incomes above 500,000 paid \$6,439,000 instead of \$3,437,000, on the ground that increase of wealth already enormous, is rather detrimental to the general prosperity. However, as the tax for 1913 began with March 1 and as perhaps the majority of dividends are payable January 1 and July 1, this may account for the apparently abnormal rise. 174 incomes of \$500,000 or more were reported. It will be noted that only about 3½ per mille of the population or about 1½% of the families of the country, have incomes of \$4000 or more. Probably the majority of this 1½% think of themselves as poor, and with considerable excuse.

N. Y. State Medical Library. Since the fire in 1911, 19,600 bound volumes, several thousand pamphlets and reprints and much unbound material has been accumulated. About 500 periodicals are received and more than 200 have complete

files. Thus, the library has more than made good its loss. A printed list of complete sets of journals has been issued. Books are sent by mail on request, to licensed physicians, full-time instructors in medical colleges, internes, registered and certified nurses and those engaged in research who present suitable references. The only expense is for return postage. Books may be retained 4 weeks, periodicals 2 weeks. Physicians coming from a distance to consult the library may have material reserved in advance. Gifts of books, periodicals and reprints are solicited. Address for all these purposes: Medical Librarian, State Library, Education Bdg., Albany.

U. S. Public Health Service: Stereopticon Loan Library.

Any responsible person may borrow standard slides, 3 $\frac{1}{4}$ x4 inches, or photographs from which slides may be made. Catalogue will be sent on request. Address Surgeon General, U. S. P. H. S., Washington, D. C., referring to letters "D. Q." The following subjects are available: Alaska, 83 views; Children and Children's Diseases, 50; Health Exhibits, 90 duplicating the exhibit at the Panama-Pacific Exposition; Hookworm, 90; Indians (housing and living conditions), 50; Leprosy, 45; Malaria, 275; Milk, 80; Parasites and Organisms, 200; Pellagra, 60; Plague, 500; Activities of the U. S. P. H. S., 320; Small Pox, 90; Trachoma, 120; Tropical Diseases, 40; Tuberculosis, 100; Typhoid, 350; Yellow Fever (number not stated). Various miscellaneous slides are also available and selections may be made from the various series so as to illustrate other subjects. The Service will assist in the selection of slides.

Football caused 16 deaths in the fall of 1915, mostly in minor games and among preparatory school and miscellaneous teams. It has been estimated that the few games of the larger colleges cost, on an approximate average \$50,000 per college. For the few prominent football universities, the cost is considerably more. This direct cost is insignificant in comparison with that for transportation and accommodation, bets, etc. Some extremists have suggested that the total cost might better be applied to military preparedness. With reference solely to mortality and traumatic disability, we question whether the game is worth the shot. The actual danger of football could be almost absolutely prevented by making football a game of direct muscular skill instead of inhibition. Solely from the standpoint of sport, we would also favor the idea of putting football on the same basis as baseball, quite aside from the question of safety to the players. This point can be made clearer by a negative illustration. Imagine the pitcher elaborately poised to throw a curve. At the crucial moment, half a dozen of the opposing team precipitate themselves upon him.

Granted that, occasionally, the ball is actually pitched an extra member of the in team bats the bat of the batter, occasionally fracturing his skull by mistake. Granted that the batter manages to hit the ball or otherwise by some extension of the rules of strikes and balls to be due at first base, he runs through a mob of infielders seeking to impede his progress. In the out-field, the picturesque catch of a fly is prevented by a skillful kick on the elbow . . . and so on for the various stages of the game. We doubt if many attendants on baseball games would favor such a change. Now imagine that football were recognized on the same principle as baseball, that every detail of the game were a matter of individual skill and that no deliberate impeding of the individual play was allowable. Under such circumstances, football would become a spectacular performance which would appeal even to the inexperienced observer, it probably could be played for a longer season and in decent weather and it would lose its lethal and most of its surgical aspects. However, there is no gain without some loss and oratory would lose a number of metaphors such as team-work and hitting the line hard.

U. S. Public Health Service Examinations for assistant surgeon, will be held January 24, at Washington and various other places, to be designated according to applications received. Candidates should address the Surgeon General at Washington, immediately. The salary is \$2000, increased by promotion, the tenure being permanent.

Horse Flesh will be allowed to be sold in New York State, after January 1, 1916, but only under its own name. This is a sensible action as it will tend to increase the amount of cheap and good meat. The horse is not liable to tuberculosis or other infection except tetanus and certain very rare and easily diagnostic diseases so that it is, on the whole, one of the safest meats. The prejudice against horse meat is purely sentimental and largely owing to the personal feeling toward the horse, now decadent since the general introduction of horseless vehicles. As the horse cannot be profitably raised for meat, slaughter is practically limited to crippled and superannuated animals so that the meat is usually rather tough and tasteless. It contains more glycogen than most meat on the market. It is particularly adapted to making dried, smoked, "beef."

The Factor of Poverty in Sanitation was discussed before the 24th annual meeting of the Clinical Society of Surgeons in Washington, November 24, by Surgeon General Wm. C. Gorgas. He alluded to the removal of competition by epi-

demies and war and predicted a general rise of wages in Europe following the present war. He quoted a cabinet officer to the effect that 55% of the arable land of this country was kept out of use and advocated a tax on land that would put it into use. (Note: Without discussing the single tax or the matter of wages, it may be pointed out that the average skilled laborer works fewer hours, with less exertion and anxiety, and has more pleasures than the average small farmer of 50-100 acres; that the average unskilled laborer is, on the whole, better off than the hired man. In order to induce laborers in the city to make a general move toward the country that would be successful, it would be necessary first to have a confiscatory single tax, secondly to remit the tax after the land was occupied, thirdly, to furnish buildings and implements, fourthly, to teach the laborer a new trade).

Two Million Automobiles were being operated in the U. S., July 1, 1914.

Preparedness. This country needs a larger military force, solely to insure against invasion. Either we do not need any increase at all or we need a very large one. A country that is absolutely defenseless and that appeals for peace purely as a matter of ethics, is more apt to be considered sincere than one that speaks softly but carries a big stick. If invaded, such a country is more apt to receive considerate treatment than one that has put up an ineffectual fight. Granted that we do need a defensive force, the regular army should theoretically be increased up to the requirements of "first line" defense. As to the second line, we feel strongly that the National Guard and not a new organization should be utilized. The National Guard, originally springing up as a spontaneous recognition of the need of a trained and not merely a paper militia, has gradually developed, first into an available state force, and then into one of national value. The men who have labored for years to render it efficient, deserve first consideration. No one recognizes more clearly than themselves that it should be enlarged and made more efficient. It is a matter of common sense to use existing forces so far as possible, in any enterprise. A strong "second line" of national defense could be developed more quickly and more economically by developing the National Guard than by starting fresh. The training of the medical profession for military service is an important item, and it can be better done by the assistance of the National Guard than in an organization without precedents and with no training at all. We invite further discussion of this important subject.

Decrease of Tuberculosis in Ontario. The rate of deaths per 100,000 population has diminished from 148 to 85 in the last 11 years.

Christian Science and Surgery. One of the strangest after-maths of the Haiselden case is that the Christian Science Monitor condemns the failure to operate to relieve the congenital intestinal occlusion.

Expulsion on Ethical Grounds. Dr. H. J. Haiselden, who advised against operating on the defective Bollenger baby in Chicago, has been expelled by the Chicago Medical Society, on account of the publicity methods employed, not as a protest against his conduct of the case. We were disgusted—and interested—to see Dr. Haiselden in moving pictures and intended to make a few scathing remarks until we reflected that our own picture and that of many of our most highly esteemed colleagues have appeared in newspapers, and that there is no essential ethical difference in this respect. While we feel that the degree of publicity given to this case was unwarranted, we also feel that ethics ought to be subject to definite rules of principle, rather than of degree and that these rules should apply equally to all members of our profession.

Philippine Civil Service Examinations. The positions of Bacteriologist and Pathologist, salary \$2,000 and \$2,500, and of Assistant Surgeon, \$1,800, are open. No formal examination will be held but applicants will be rated according to education, experience and publication of thesis submitted. Apply immediately to the U. S. Civil Service Commission, Washington, for form B. I. A. 2 and 2118.

Kidney Cures Seized by U. S. Dept. of Agriculture. “Old Jim Field’s Phosphate, Dil and Gin, Mankind’s Greatest Friend,” and Stuart’s Buchu and Juniper Compound, have been condemned under the Pure Food and Drugs Act, the former containing 41%, the latter 18% of alcohol. Such proportions of alcohol were held to be positively harmful.

OUR CONTEMPORARIES.

We refer to the Obituary Dept. for a notice of Dr. Kenneth W. Millican, well known as an editor in this country and England.

The Medical Review of Reviews has been purchased by Dr. Wm. J. Robinson, editor of the Critic and Guide and the

American Urologic Review. The former editor, for four years, was Dr. Ira S. Wile.

OBITUARY

Readers are requested to report promptly the death of all physicians in Western New York, or former residents of this region, or graduates of any medical school in Western New York, and to notify the families of the deceased of our desire to publish adequate Obituary notices.

Dr. Andrew J. Martin, Buffalo 1887, died at the German Deaconess's Hospital in Buffalo, following an operation, November 24, aged 55. He was born in the town of Clarence, Erie Co., N. Y., and was graduated at the Buffalo State Normal School. He taught school for several years before studying medicine. After graduating in medicine, he practiced for five years in Clarence and then studied at Heidelberg for two years and served in the Vienna General Hospital for a year, returning to America in 1897 and locating in N. Tonawanda, where he has practiced ever since. He was a member of the State and County societies, of the Twin City Academy of Medicine and of the local chapters of the Masons and Odd Fellows. He was coroner of Niagara Co. for three years, Health Officer of N. Tonawanda for three terms and for many years served on the local Board of Health. His loss is much regretted.

Dr. Alfred Bowlby, of Waterford, Ont., died November 9, aged 96.

Dr. John W. Fawdry, N. Y. Homoeopathic 1892, died at his home in Corfu, November 10, aged 50.

Dr. Merle Cornelius Newkirk, Johns Hopkins 1913, of Sherman, died at Ellicottville, November 24, aged 28.

Dr. Kenneth Wm. Millican, B. A., M. R. C. S., L. R. C. P., editor of the London Lancet, died suddenly of acute dilatation of the heart, in London, early in December, aged 62. He was born in Leicester, received his arts degree at Cambridge and studied medicine at St. Mary's Hospital. He was appointed surgeon and laryngologist to the Infirmary for Consumption, London, in 1897 and surgeon to the West End Hospital for Paralysis, London, in 1898. In 1898, he was surgeon to a copper mine in California, having previously traveled around the world. Subsequently, he became one of the editors of the N. Y. Medical Journal. Later he assumed the editorship of the St. Louis Medical Review, resigning in 1906 when this journal

changed from a weekly to a monthly and joining the staff of the *Journal of the A. M. A.* with which he remained till 1910. It was his intention to establish a sanitarium on an estate which he had purchased in Vermont but he was offered a position on the *Lancet*, which he accepted and held till his death. In addition to his medical writings, he had published two volumes of poetry, *Passion Spray* and *Smoke Clouds*, and had frequently favored his friends with original verses.

Dr. Rudolph August Witthaus, N. Y. University 1875, died at his home in New York City, December 22, aged 64. He was Professor of Chemistry in the Medical Dept., University of Buffalo, 1882-1889 though, for the last two years of his service, he was not a resident of Buffalo and gave only a few lectures each session. In 1898, he became Professor of Chemistry in Cornell University, Medical Dept., becoming Emeritus Professor in 1911. He was the author of several works on chemistry for use by medical students and practitioners and, conjointly with Tracy C. Becker of Buffalo, of an elaborate work on *Medical Jurisprudence*. He was well known as an expert witness in poisoning cases. Few men had done so much to advance the practical application of chemistry to medicine and to emphasize its importance as an undergraduate medical study, in the '80's although he was a toxicologist rather than a physiologic chemist. An anecdote of his connection with the University of Buffalo illustrates his keen wit. Though generally well liked, and always highly esteemed, and recognized as an excellent teacher, he had at one time fallen into temporary disfavor on account of participating in the movement toward more stringent examinations than were the custom 30 or 40 years ago in medical schools. Accordingly, as he entered the lecture room, he was hissed. His response was "Gentlemen, there are two animals that hiss: the snake which I crush with my heel and the goose which I pluck."

PERSONAL.

Announcement of removal, travel, and other matters of interest are requested. Please report errors in the listing of any physician in the State and other directories, that we may co-operate with the State Society in securing a correct list.

Dr. Wesley M. Baldwin has resigned the assistant professorship of anatomy at Cornell and has accepted the corresponding full professorship at the Albany Medical College.

Dr. Harry R. Trick of Buffalo made a trip to New York in December.

Dr. B. F. Rogers of Buffalo has gone to California to spend the winter.

Miss Ida Caldwell of Buffalo, who has been a visiting nurse, has been engaged in the same capacity for Tonawanda.

Dr. J. J. A. McMullen of the Navy Recruiting Station at Buffalo, will be transferred to the Philippines January 18. He will be succeeded by Dr. Harry L. Brown, at present on the U. S. S. Chester.

Dr. Willis G. Gregory of Buffalo was the guest of honor at a dinner at the Lafayette, December 8, in commemoration of his 25 years of service as Dean of the Dept. of Pharmacy of the University of Buffalo. The dinner was given by the associated faculties of the University. Dr. Thomas H. McKee, Dean of the Medical Dept. presided. Toast were responded to by Chancellor Chas. P. Norton, Dr. Chas. G. Stockton, Prof. Philip Becker Goetz, Rev. Carl D. Case, D. D., Dean Carlos C. Alden of the Law Dept., Dean Daniel H. Squire of the Dental Dept., Hon. Arthur W. Hickman, Dr. John R. Gray and Dr. Jas. A. Gibson. Dr. A. P. Sy read letters from those unable to be present. Prof. Julian Park of the Arts Dept. presented Dr. Gregory with a clock from the members of the faculties.

Dr. Jacob Miller has removed his office from 992 Humboldt Parkway to 558 Ellicott Square, and will limit his practice to Diseases of the Rectum.

Alcohol Content of Proprietary Medicines. Unless the examination of the subject published in N. A. R. D. Journal, Nov. 4, is at fault, the alarm frequently expressed at the spread of the alcohol habit through proprietary medicines, has little foundation in fact. The revenue list of June 6, 1914, contained the names of 287 such preparations. Two of the largest wholesale price lists of proprietary medicines contained only 14 of these titles. Examination of several drug stocks and inquiries of several wholesale druggists, showed that practically none of these were sold to druggists, though they may be in use by saloons, or locally and privately to evade prohibitory laws. Of 1108 proprietary preparations, 308 or 27.79%, contained alcohol to the extent of 1% or more, but it is implied that none of these were adapted to use as beverages. In comparison, it is interesting to note that of 427 official Galenicals, 206 or 48.24% were alcoholic, and that of 575 N. F. Galenicals, 274 or 47.65% were alcoholic.

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ORIGINAL ARTICLES

The right is reserved to decline papers not dealing with practical medical and surgical subjects, and such as might offend or fail to interest readers. Contributors are solely responsible for opinions, methods of expression and revision of proof.

Tetanus. With a Report of Two Cases of Sub-Acute Tetanus Followed by Recovery.

By EDWARD A. SHARP, Buffalo, N. Y.

Tetanus has recently become a prominent subject in medical literature, and the large list of drugs advocated in the treatment indicates the unsatisfactory state of the therapeutics of this disease. The old adage that "An ounce of prevention is worth a pound of cure" applies nowhere more strikingly than in tetanus.

The use of the tetanus antitoxin as a prophylactic, given within the first day or two following an injury, is fairly certain in preventing the onset of symptoms, especially if the dose is repeated and proper surgical measures are directed toward the wound.

The situation is very different, however, after the symptoms have developed, and, with all the refinements of modern therapeutics, the one factor most influencing the prognosis is the length of the incubation period. Comby summarizes these well-known facts briefly as follows: "There is an inverse relation between the duration of the incubation and the gravity of the symptoms. With a long incubation the evolution is slow and the prognosis benign; with a short incubation period the evolution is rapid and the prognosis almost invariably fatal."

These facts have been confirmed by the few cases which have been admitted to the Ernest Wende Hospital during the years 1913 to 1915. Of the six cases which have been under treatment all have had a short incubation period, from three to nine days, and, in all, the symptoms were very severe and the results fatal. On the contrary, two cases which I have had

under observation during the past year, having a long incubation period—one of two weeks and the other of four weeks—have recovered.

Here, again, the well-known facts, as expressed recently by Nigay, have been observed. "that when the first symptoms of tetanus appear within ten days after the injury the chances of recovery are greatly reduced, and that tetanus is fatal when the incubation period is less than eight days. On the contrary, when the symptoms appear after a long incubation—more than fifteen days—spontaneous recovery is the rule."

Based on the length of the incubation period tetanus is usually classed as acute, when the period is less than ten days, and sub-acute or chronic when the incubation is over ten days.

As the specific cause of tetanus is an anaerobic bacillus, injuries of a certain class are more liable than others to develop tetanus. The dense connective tissue and fascia of the hands and feet make injuries to these members peculiarly susceptible, especially if contaminated with street or stable dirt. While deep, penetrating or crushing wounds are more liable to produce the conditions favorable for infection, surface scratches which become sealed over are also liable, and in a few instances no source of infection could be found. The six acute cases at the Ernest Wende Hospital were of the former type, while one of the sub-acute cases had merely a contusion of the shoulder with slight surface redness as the only ascertainable source of infection.

Injuries received on the battle-field are particularly liable to infection, and reports indicate that the prophylactic use of antitoxin in the present European War is almost universal and the results satisfactory. One report speaks of the highly cultivated soil of a certain district in France as "the tetaniferous region of Varedes," where every soldier injured developed tetanus unless the prophylactic dose of antitoxin was given immediately after the injury.

The great difficulty in the treatment of tetanus is the lack of a satisfactory method to combat the infection after it has once started. The serum treatment, to be effective, must be given early and in large and repeated doses. If the antitoxin has not been given as a prophylactic within the first twenty-four hours after an injury it should be given on the very first appearance of symptoms. The difficulty appears to be in recognizing the earliest symptoms indicating the onset of tetanus. In all of the six cases mentioned above, the first symptoms which definitely decided the diagnosis and resulted in the case being sent to the hospital were some form of muscle spasm or rigidity. On inquiry it was found that symptoms had been present for twelve to twenty-four hours preceding these visible muscle spasms. In one case, a boy of thirteen years old, said

that the day before coming to the hospital, i. e., on the sixth day after a penetrating wound of the foot, he had experienced a sensation of a frequent desire to bite the teeth together—a temporary muscle hypertonus but completely under voluntary control. The next day this became a definite trismus and beyond voluntary control, and the locked jaw definitely established the diagnosis. In another case, a woman thirty years old, had pains in the head and neck, and a slight stiffness and soreness in the throat on the third day after infection. Two days later the jaw became tense and difficult to open, and on the seventh day after infection she was admitted to the hospital.

In a male patient, thirty-five years old, the first symptoms were a slight stiffness in the neck and a sensation of soreness in the throat. Later, temporary spasms of the jaw muscles with difficulty in opening the mouth, coming on eight days after a crushing injury of the left foot, which was amputated within three hours after the original injury.

Occasionally the first symptoms are localized to the part or extremity injured, and later become generalized. Localized tetanus is rare, unless we except the type localized to the cranial motor nerves, called "head-tetanus," and which appears to have a more favorable prognosis than the other types of acute tetanus.

In a boy ten years old, with an infection of the jaw, the first symptoms were a stiffness of the throat and some soreness beginning on the fourth day. The following day severe trismus developed, and the muscle spasm was localized strongly on the right side of the face, while the left face showed partial paralysis, and the mouth was drawn to the right. Later the extremities became involved in severe tetanic convulsions, and a marked opisthotonos occurred as a terminal phenomenon.

Aside from the earliest symptoms, the further clinical manifestations of the disease were the usual and classical symptoms such as headache, stiffness of the neck, face and jaw, with difficulty in swallowing. Convulsions recurred at frequent intervals and sometimes were of considerable duration. At times clonic jerking of the extremities occurred in place of the tonic rigidity. Cyanosis was a marked symptom in the cases with prolonged tonic spasm, due to involvement of the diaphragm. Profuse perspiration and excessive thirst was a marked symptom in all the cases. Consciousness was retained nearly to the end, except in the one case in which magnesium sulfate was given intraspinally.

The medical treatment of the hospital cases was carried out with the assistance of Dr. Harry Mead, of the consulting staff; the surgical treatment by the surgical staff of the hospital.

Tetanus antitoxin was given in every case. In two instances

this was given intraspinally, intravenously and intramuscularly; in one the antitoxin was given intravenously and intramuscularly, and magnesium sulfate solution given intraspinally; in the other three cases the antitoxin was given intraspinally and intramuscularly, and the Baccelli treatment by hypodermic injection of carbolic acid solution was employed.

The usual dose of antitoxin was 5000 units injected by lumbar puncture into the dural sack; and 10,000 units for intravenous and intramuscular use. This dosage was usually repeated in twenty-four hours.

In conjunction with the specific antitoxin treatment, symptomatic treatment by the use of chloral, morphine, etc., was employed.

Chloral may be given in large doses and the tetanus cases appear to tolerate the drug very well. Some writers have reported using 10.00 to 20.00 grams of the drug daily—sufficient to maintain the patient in a constant stupor, although none of our cases received such massive doses. The usual dose was 10 to 15 grains every four hours.

The Baccelli treatment consists in giving subcutaneous injections of a 3% carbolic solution 5 to 6 c. c. daily in divided doses. It was of no particular service in any of the acute cases.

The use of magnesium sulphate as recommended by Kocher was employed in one case. 6.0 c. c. of a 25% solution was injected into the spinal canal after withdrawal of 30 c. c. of clear spinal fluid. This produced complete relaxation of the severe muscle spasms for 36 hours preceding death. Magnesium sulphate has also been used subcutaneously in a 10 or 20% solution, in doses of 1.5 grams per kilogram of body weight. Like the intraspinal method this produces deep sleep and relaxation of all voluntary muscles.

The danger from the magnesium sulphate solution by either method of administration, is the arrest or embarrassment of respiration, and this may have contributed to the fatal issue in one of our cases.

In view of this danger Zuelzer recommends magnesium glycerophosphate as more effectual and less toxic than the sulphate. 10.0 c. c. of a 25% solution given subcutaneously every three or four hours will keep the convulsions under control.

Ashhurst and John recommend the intra-neural injection of antitoxin and infiltrations of the tissues about the site of the injury, in addition to the use of the antitoxin intravenously and intraspinally. The rationale of this method is based on the fact that the toxin travels along the sheath of the motor nerves and the antitoxin is brought in close relation with the toxin as it travels upward to the spinal cord. It may thus destroy the toxin before it reaches the central nervous system,

and prevent the toxin from becoming fixed in the nervous structures.

Kempf employs a somewhat similar method by blocking, with antitoxin, the motor nerves leading to the infected area, and draining the nerve sheath to prevent the central extension of the toxin.

Neither of these latter methods have been employed in our cases, but from the unfavorable experience with other methods this would seem to deserve a trial.

It is to be noted, however, that Kempf's two cases were the sub-acute type in which the tetanus developed after an incubation period of 18 or 20 days, which, in our experience, are favorable under almost any form of symptomatic treatment.

Of interest in this connection are the two cases of sub-acute tetanus which recovered.

Case 1. A young lady, 23 years old, in February, 1915, ran a splinter in right foot. Suppuration occurred and she was lame for ten days, and applied flaxseed poultices to the wound. Two weeks after the injury painful cramps developed in the jaw, and the mouth could not be opened. The extremities became rigid in extensor spasm; the face had a peculiar and stiff sensation, and the muscles were drawn up and the face immovable. The tonic extensor spasms in the extremities continued almost constantly for nearly four weeks, after which time they occurred only periodically and of a few minutes duration. Any sudden jar or noise would bring on an attack. The patient was confined to bed for eight weeks.

About the middle of April the spasms ceased spontaneously, but the left knee was stiff after getting up from bed, and there was a painful rigidity of the spine preventing anterior flexion. In June the stiffness of the spine was quite marked, and there was tenderness over the entire lumbar region and at the fourth dorsal spinous process. A radiogram made by Dr. Koenig showed some irregularity of the body of the fourth dorsal vertebra. There was also some limitation of movements in the right shoulder at this time. During the summer the rigidity of the lumbar portion of the vertebral column improved, and the spondylitis at the fourth dorsal vertebra became less marked.

The vertebral symptoms in this case were probably due to the severe and persistent muscle spasm combined with a toxic arthritis, producing a form of traumatic spondylitis.

Tetanus antitoxin was not given, and during the prolonged period of muscular rigidity the treatment was merely symptomatic. There was a spontaneous recovery from the tetanus.

Case II. On May 25th, 1915, a child, 7 years old, fell down a cellar stairs, striking the right shoulder on the cement floor. The shoulder was sore for two or three days, but there was

only a slight redness, probably a skin abrasion, noticed. She had no other injury from this time until the onset of symptoms of tetanus four weeks later. She began to have a sore throat, but on June 25th was able to go to a picnic, and while there she developed a spasm of the muscles of the jaw and was unable to eat but could take liquids. Two days later the trismus became severe and persistent. Tonic spasms of the muscles of the trunk and extremities occurred eight or ten times daily.

On June 29th, 1915, the child was admitted to the Erie County Hospital on the service of Dr. J. S. Otto. During the first two weeks in the hospital there were numerous tetanic spasms lasting from a few minutes to a half hour or longer, and the trismus was very severe and persistent.

One of these convulsive attacks, observed on July 13th, showed the muscles of the face hard and fixed, with the corners of the mouth drawn down, producing the typical "sardonic grin." The jaw was firmly closed and the muscle spasm could not be relaxed, although the child was able to answer questions in monosyllables. The tonic spasm involved the upper extremities, although the child was able to move the arms a little and appeared to gain some relief from the painful spasms by tightly grasping her mother's hands. The proximal muscles were more involved than the distal, and movements at the wrist and fingers were retained. The abdominal muscles were very tense. The lower extremities were held rigidly in extension at the knees and ankles. By exercising slow, strong, passive movements the extensor spasm of the knees could be overcome, and this gave the child some relief. With the knees in the semi-flexed position the knee-jerks were found to be present and not exaggerated. The spasm continued for about ten minutes and then relaxed. The extremities could then be moved about freely and the head could be flexed on the chest, although during the spasm it was markedly retracted. The trismus, however, did not relax during the interval. Spasms of this character were recurring at frequent intervals and were brought on by any noise or excitement.

At this stage of the disease, i. e., 18 days after the onset of the first symptoms and forty-eight days after the injury, the Baccelli treatment was started. The child was given 6 to 8 drops of a 2% phenol solution hypodermically every three hours, and ten grains of chloral hydrate in starch-water emulsion every four hours. The following day there was only one convulsion and that occurred during the excitement of a visit from the physician. Sleep was produced and the child kept in a drowsy condition for several days. The phenol treatment was continued until the urine became slightly smoky. After a few days the muscle spasm of the jaw relaxed and the child made a good recovery. For several weeks during convales-

cence there was marked stiffness of the vertebral column with pain on movement, and the child experienced some difficulty in using the lower extremities when allowed to walk.

A spondylitis very similar to that observed in the first case was present up to the time the child left the hospital, although showing gradual improvement.

The antitoxin was not used in either of these sub-acute cases. In each case the infection had probably developed its own antitoxin in sufficient amount to protect the patients, and they were in process of spontaneous recovery at the time they came under observation.

In case No. II. the Baccelli treatment cut short the muscle spasms and shortened the course considerably as compared with the first case in which no such treatment was given and the spasms continued for about four weeks.

The immediate after-effects of each of these cases was a form of traumatic spondylitis which gradually recovered.

481 Franklin Street.

Resection of the Stomach. Professor H. von Haberer (Arch. f. Klin. Chirurg., Bd. 106, Hft. 3) has performed 183 resections of the stomach, 60 for carcinoma and 123 for ulcer. In 54 of the 60 cases of cancer the stomach alone was resected with an operative mortality of 22 per cent., 5 patients surviving four to nine and one-half years. In 6 cases a gastro-colic resection was done with 5 operative deaths. Of the 123 cases of ulcer 8 died after the modified Billroth operation and 3 after transverse resection. There were 66 cases in which the later results could be determined, and of these 61 were in complete health three months to four years after operation. Resection is particularly indicated for cancer and even in apparently inoperable cases permanent results are occasionally obtained. The only contraindications are demonstrable metastases in other organs, multiple peritoneal metastases, and infiltrating growths involving the entire organ. Large size of the tumor, adhesions, local glandular metastases, even of glands in the pancreas, if removable, do not constitute positive contraindications. For cancer the method of Billroth II is the most rational. Both this method and transverse resection are vastly superior to gastro-enterostomy in the treatment of gastric ulcer.—Int. Jour. of Sur.

Glonoin. Dr. H. M. Farr, Mt. Pleasant, Ia., says a granule of glonoin will relieve the sense of oppression or constriction of the chest, not amounting to actual pain, which often causes restlessness and insomnia. He has found that a single granule dissolved on the tongue will relieve this sensation and that sleep will follow almost immediately.

Treatment of Ophthalmia, Neonatorum

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It is neither within the intent or scope of this paper to discuss the treatment of ophthalmia neonatorum in all of its therapeutic or academic phases, but rather to put before you the principles underlying the handling of this disease, and to speak in a more or less general way of certain features which may concern you as general practitioners.

In the beginning, it seems wise to define ophthalmia of the new born. The term includes all cases of conjunctivitis, from what ever cause, occurring in infants during the first month of life. Mr. Sidney Stephenson of London in 1898, in a study based upon some 500 cases, adduced figures to the effect that while approximately 70% were due to the Neisser organism, the remaining 30% were due to other bacteria. The tables of other observers come somewhere near corroborating these proportions. In other words, contrary to the general impression of the medical world, nearly one-third of cases are non-gonorrhoeal. In this one-third, one has to deal with either the staphylococci, streptococci, pneumococci, Koch,-Weeks—bacillus, the diplo-bacillus of Morax-Axenfeld, Klebs-Loeffler, colon or some combination. The obstetrician who as a routine uses the Crede method, is also confronted with an occasional silver catarrh. This data is introduced for two reasons, first to remind us that there are ophthalmias other than gonorrhoeal, a fact which has a practical bearing upon the reputation of physicians clientele, in that a conjunctivitis in a new born infant is not necessary indictment of the parents, and secondly to lead up to the importance of an early bacteriological diagnosis of the particular case in hand.

There are two classes of ophthalmia recognized by clinicians, based upon the time of infection; the primary in which infection takes place during birth, and the secondary, in which infection is received after delivery. In the former class, according to Weeks, gonorrhoeal infection likely occurs during the passage of the child's head along the mother's tract, just at the time of delivery by the entrance of the vaginal secretion containing the gonococci into the conjunctival sac. In rare cases infection takes place ante-partum, the disease being well advanced at birth. While in the secondary class, that is those not infected during parturition, contamination by nurses or mothers hands, unclean washes, soiled linen and other infection carriers are responsible for a large number of these unfortunate cases. In the individual instance the time at which

the disease makes its appearance may indicate whether the infection is vaginal or extra-vaginal, the period of incubation for gonorrhoea being from 12 to 48 hours.

Diagnosis.

While gonorrhoea cases have been known to appear within 12 hours, symptoms as a rule, do not present themselves until the second day and then in the form of a slight redness of the conjunctival. By the third morning the lids are glued together by mucos-pus. From then on the increase of pus, swelling of the lids, thickening of the conjunctival, and all of the other details of the well known picture of ophthalmia neonatorum present themselves. From what has been said before, it is quite obvious that bacteriological examination of the lid secretion is imperative. Just here it may be permitted to insist upon the importance of taking early smears. Those of us who have had experience in examining conjunctival secretions, will agree, that the best and most characteristic slides are obtained early in conjunctival disease. This is particularly true in gonorrhoea, as well as in some of the other organisms, which must be taken into a differential consideration. The platinum loup and slides should be as common a guest in an obstetrical bag as the hypodermic needle or chloroform bottle. The microscope and microscope alone, will determine in many instances the type of conjunctivitis with which we are dealing.

Protection.

It must be the first duty of the medical attendant when he discovers the presence of a one-sided conjunctival discharge to protect the second eye. This may be done by means of a shield of a watch crystal cemented on by adhesion tapes, reinforced by collodion, (an ordinary vaccination shield affords a fair substitute), or by a cotton dam, extending from the forehead to the nose, likewise cemented by collodion. The child should be turned on the side of the infected eye to prevent secretions from trickling into the sound eye. The infants' hands and feet must be restrained to prevent carrying of infections by these means. The attendants must also be warned as to danger of contamination.

Treatment.

Treatment to be effective must be instituted early, the earlier the greater are the chances of success. Treatment resolves itself roughly into mechanical and germicidal. By the former is meant the removal of pus from the conjunctival sac. This is imperative. The conjunctival must be flushed with some germicidal solution, be it boric acid, sterile water, bichloride 1-10,000, normal saline, potassium permanganate, or what not. The choice of irrigation is of relatively slight significance, compared to the necessity of keeping the conjunctival free from secretion. These irrigations must be frequent and thorough

enough to accomplish this end, ranging from every 15 minutes to every half hour or hour as the individual case may demand.

Germicidal.

Of almost secondary importance is the use of some germicidal application other than the irrigation. Silver nitrate, in strengths from $\frac{1}{2}\%$ to 4%, protargol, nargol, collargium, silver acetate, sophol, zinc chloride, alphozone, silver iodide and a host of others in varying strengths and in varying frequency, all have ardent and enthusiastic supporters. As a matter of fact the reader feels that silver nitrate is safe and well seasoned and with some of the newer silver salts as adjuncts, he is well armed. Where argyrol* is not effective, some other is tried until the medicament which does the best work in the individual case is found. These adjuncts may be used every hour by the attendant.

According to Axenfeld, the thermal range of the growth of the gonococcus is from 25 degrees to 39 degrees C (77 degrees to 102 degrees F). If this be true, cold such as may be safely applied to the eye cannot greatly inhibit the growth of that organism. Cold compresses, however, in the acute stage may relieve suffering. Cold should not be applied continually in the form of an ice bag, because of the danger of lowered corneal vitality but should be applied during alternate hours by means of gauze pledgets chilled on ice. Cold is absolutely contraindicated if the cornea becomes involved.

Complications.

The danger of and disastrous results from ophthalmia neonatorum are not in any way contingent upon damage to the conjunctiva, the primary host of the infection, but are the direct result of destruction of the cornea. Whether blindness or sight shall follow an attack, will depend entirely upon the preservation of the integrity of the cornea. While various complications may supervene, yet the success or failure of treatment must stand or fall upon the saving of a clear cornea. This is the really important factor to be considered and about the cornea the management of the case must revolve. Every other phase of the disease is of relative insignificance. The cornea must be watched with the greatest care and solicitude. The appearance of slight grayish haze or faintest abrasion is a danger flag of most vivid hue, for this likely is the fore runner of an ulcer, which in turn may mean an opaque scar or a lost eye. It is because of the cornea that

*Duane of New York has lately suggested that part of the efficiency of argyrol is due to its mechanical effect in removing infection. He therefore, advises the use of a drop of argyrol, then after waiting a few minutes, flushing the eye again removing the coagulated deep secretion. Finally another drop is instilled which is allowed to remain. In this way he feels that the secretions and bacteria are thoroughly removed and the argyrol that is last put in has unobstructed access to the germs that remain.

these cases should be under the care of the trained ophthalmologist. It is here that the most delicate and most intelligent management is most needed. In corneal involvement cold is absolutely contra indicated, while heat is most desired, along with many special measures ranging from atropine, and mild stimulants to paracentesis of the anterior chamber.

Nursing.

Just as important as medication, and in the minds of most of us of even more importance, is the necessity of careful nursing. Under no circumstances must the cornea be touched with either dropper, retractor or sponge. The reader is thoroughly convinced that many corneal ulcers are the direct result of abrasions of the corneal epithelium at the hands of careless nurses. When once the corneal epithelium is interrupted, an avenue of infection is created, producing an ulcer which may mean blindness to its unfortunate and guiltless host. The dry cotton which is sometimes used to wipe away secretion and take up the excess of irrigating fluid is a source of danger, in that the tiny cotton fibrils may become entangled between the lids and pressed against the cornea producing a dreaded abrasion. This may in large measure be obviated by insisting that cotton used for such purpose be wet. Thoughtful care and gentleness in nursing these cases aid beyond all estimate, while roughness and carelessness on the part of an attendant nullify the most intelligent medical efforts.

General Treatment.

While local measures are important, the reader is not so sure but that ophthalmologists as a class lose perspective in their anxiety about the eyes. Corneal resistance bears a direct relation to the vigor of the child. In an enthusiastic and commendable effort to control the local situation they momentarily forget that they are treating a part of a body. There are undoubted instances where the frequent treatments which have seemed so necessary have so disturbed the little patient's rest that general health has suffered severely and along with the lowered vitality the cornea have melted away.

While this discussion has been in large measure one which has dealt with the gonorrheal type of ophthalmia, it comes some where near being applicable in a general way to the other types of the disease, although most of them need less energetic measures; none except the diphtheretic and morax-axenfeld type need special mention. In the former anti-toxin is indicated. Unfortunately vaccine therapy has brought no tangible asset in the treatment of gonorrhoeal ophthalmia. In morax-axenfeld infection zinc in some form is an absolute specific.

The following summary may be made:

1. Not all ophthalmias of the new born are gonorrheal. Thirty per cent. are due to other organisms.

2. In cases of unilateral infection protect the sound eye.
3. Bacteriological examinations are most important. Smears should be taken early.
4. Early diagnosis is imperative. All cases of conjunctivitis in new born must be regarded with suspicion until proven of benign type.
5. Infection is not always during birth, but frequently comes from extra vaginal sources.
6. Because of the cornea, gonorrheal ophthalmia should be under the management of the ophthalmologist.
7. Careful and intelligent nursing is as important as medical advice.

It is generally conceded that successful treatment of ophthalmia neonatorum depends upon measures early instituted. For this reason great responsibility rests upon the general practitioner, not only for early recognition of the disease, but for insistence upon immediate advice and adequate nursing. In still a greater way may he be of infinite service to humanity by becoming a disseminator of information to his clientele and the public at large, concerning the dangers of ophthalmia neonatorum, and the fact that it is largely preventable by the Crede method. As far as the public is concerned this subject should no longer be handled with gloves but spoken of openly and frankly. By lay education as well as education of the medical public in intelligent prophylaxis may be stamped out the disease which is responsible for nearly a quarter of blindness.

575 Delaware Avenue.

The Teaching of Hygiene and Maladies of First Infancy. A. B. Marfan *Le Nourrisson*, Nov. 1914, pp 313-335. In the beginning of the twentieth century, of every 1,000 live-born infants in France, 150 died in the first year (of which 46 died in the first month, and 17 in the first five days), 50 in the second year, 25 in the third year, 17 in the fourth year, 13 in the fifth year; 56 in the fifth to tenth year, and 34 from the tenth to fifteenth year. The general mortality was 22 per 1,000, and of those under forty only 11 per 1,000 of the living died. In France at the beginning of the twentieth century about 800,000 infants were born every year, of which about 120,000 died before they were one year old; however, infant mortality has been on the decrease, as the following figures show:—

From 1892-1895	258 per 1,000
From 1896-1900	229 per 1,000
From 1901-1905	164 per 1,000
In 1906	145 per 1,000
In 1909	143 per 1,000

Inanition in Carcinoma.

ARNOLD H. MAY, M. D.

In cases of carcinoma of the stomach, particularly in those cases involving the cardiac and pyloric orifices, the question of nutrition is one of primary importance. Sooner or later, this is the predominating factor in these cases, and inanition is often the determining cause of the end long before the malignant process. Whereas in these cases of carcinoma there exists a marked cachexia, the condition of inanition resulting from inadequate feeding is often overlooked, or considered too late, hence patients pass into a condition of exhaustion and collapse. Knowing the fatality of the disease, those attending the sick often consider this mechanic interference to nutrition in no special light, since it simply hastens the end to a miserable existence. Nevertheless, the fact remains that death resulting from inanition is in a sense premature, since in many cases life may be prolonged if these measures designed to overcome inanition are employed, and during this period there results also a palliation of symptoms. Too often, however, in spite of all, inanition must be the determining factor of the end.

The measures employed to maintain the patient and supply him with adequate heat units are well known to the profession. In malignancy of the oesophagus and cardia before there is complete stricture, a liquid diet rich in foods of high caloric value is indicated. Here the necessary calories are introduced in milk, cream, eggs finely beaten, butter strained, and highly nutritious broths, oils, and perhaps scraped or chopped meats, artificial albumens; and in fact any liquid or liquifiable, highly nutritious, digestible food is indicated. Not only variety, but adequate amount is essential, the dietary containing at least 2,000 heat units per 24 hours. Cohnheim's dietary is as follows:

- 8 a. m.—Tea with 125 gms. of cream;
- 9 a. m.—Milk (250 gms.)
- 11 a. m.—Flour soup with 125 gms. of cream and butter;
- 1 p. m.—Bouillon with a tablespoonful of flour and one or two yolks of eggs and butter;
- 4 p. m.—Tea with 125 gms. of cream;
- 6 p. m.—Flour soup or milk;
- 8 p. m.—Bouillon with rice or flour and butter.

With advancing cardiac stenosis the above diet will be found soon to be impossible—foods being regurgitated into the mouth. When this occurs an attempt may be made to dilate the stricture by means of sounds—the employment of hollow sounds being considered. The use of sounds demands caution,

since great irritation or even perforation may result. As a rule, however, natural feeding being impossible, an inadequate amount of food reaching the stomach, the physician must decide quickly between gastrostomy, or inanition and subsequent death. The earlier as a rule gastrostomy is determined upon (and no special contraindication existing, e. g. extreme cachexia, etc.) the better will be chance of prolongation of life. It has oftentimes been the custom at this stage to employ and rely upon rectal feeding. An assimilation of pre-digested food by the colon is possible, as is also the absorption of a large variety of nutrient material. Effective digestion of food value of molecules of solid undigested food per rectum is very small. The colon absorbs fluids; enemata thus increasing the fluids of the body. As an adjuvant method of nutrition, or employed over short periods, rectal feeding has a distinct value, but relied upon alone inanition results. Gastrostomy being performed feeding can proceed through the fistula and per rectum.

In cases of malignant stenosis of the pylorus the first indication is to give sufficient food of a highly nutritious character in the liquid state, and in small quantities, so as to permit of its expulsion into the duodenum. The stenotic pylorus causes hypertrophy, and later atony of the stomach muscle, so that retention and stagnation occur. The mucous membrane undergoes changes, and atrophy, so that hydrochloric acid is absent or diminished, and hence the food undergoes putrefactive and fermentative changes, the small amount reaching the duodenum being diminished in food value or even toxic. Nutrition quickly suffers under these circumstances. A measure then designed to permit of the passage of food from the stomach to intestines is indicated, and gastroenterostomy is the operation of choice.

Gastroenterostomy theoretically ideal is practically questionable, since the mortality and sequelae of it in the hands of those not especially skilled often make it prohibitive. Gastroenterostomy successfully performed readily permits of feeding per os. Rectal enemata may also be used as an adjuvant measure. The average prolongation of life after gastroenterostomy is according to Krönlein "193 days." A palliation of many symptoms also following the operation.

If in these cases having considered the mechanical impediment to ingestion of food, inanition is early combatted, the life of the patient may be prolonged. No successful remedy having been discovered to combat visceral carcinoma (except surgery early) the physician must content himself with the employment of those measures which at most prolong life or palliate symptoms.

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The Passing of the Functional Disorder.

Comparatively recent work by Crile on shock, fright, etc., has demonstrated—barring the subsequent presentation or rebutting evidence sufficient to shatter what appears to be the most obvious, direct testimony—that what have heretofore been regarded as purely functional mental phenomena are really organic in their nature, producing visible effects not only in the cerebral cortex but in the cerebellum, medulla and cord. These effects consist in marked changes in the Nissl staining chromophoric portions of the nucleus, apparently directly related to chemic action on the one hand, and to motor discharges on the other.

The changes in the cells can even be measured by differential counts, quite analogous to blood counts. Unfortunately, the method is obviously not applicable clinically nor, as yet, even by the use of successive determinations in the same experimental animal. However, both at autopsy in the human being and still more definitely in the sacrificed animal, inductive evidence of the strongest character, is available for a criterion of subsequent cases and, by controls, the stages of the process can be noted in animals. Nor would we be surprised if operative technic should be perfected so as to allow the stages of the process to be observed in the same experimental animal by the successive removal of minute portions of the brain.

Crile's researches, important as they are in their immediate application, are even more so in their suggestiveness. Thus far, nothing has seemed more purely functional than mental

and nervous states due to shock, fatigue, fright, anger, and even toxaemias. At most, we have found an actual basis for them, in vaso-motor phenomena, and perversions of chemistry. Animals have been tortured hour after hour, by the most elaborate methods, with the result that there is no such thing as fatigue of nervous structures—a result contrary to common sense. Now, thanks to Crile's researches, we have a definite basis for the explanation, not only of fatigue but of various other forms of nervous strain, a suggestion as to the correlation of physical, chemie and psychic causes and effects, definite hints as to the relations of such apparently diverse conditions as fright and hyperthyroidism, toxaemia and shock, "nervousness" and diabetes.

It has long been known that nervous manifestations which could only superficially be considered functional, may be due to renal alterations. So, too, toxaemic, dropsical, and vaso-motor manifestations which would, otherwise, be attributed to functional changes, although obviously with more definite physical explanation, have also long been charged to the same organic lesions. Within a comparatively few years, analogous manifestations have been traced to organic changes in various ductless glands and, in the same category, may be placed the researches on diabetes. It is true that these researches do not agree on the pancreas as the locus of all cases of what is commonly termed diabetes, but this fact is no more remarkable and no more discouraging than that various other groups of symptoms may be traced to more than one organic basis. Hypochlorhydria is, in many instances, definitely ascribable to one or other of several organic states. Hyperchlorhydria, with due allowance for the impossibility of securing histologic material in most cases, has almost positively been traced to a definite hypertrophy of definite cells. Now, with a fresh group of experiments, locating lesions of various so-called functional disturbances—and among them those which have long been considered most typically functional—in the Purkinje cells, it is not unreasonable to hope that we shall, in the comparatively near future, be able to discard this unsatisfactory word altogether.

Business Psychology.

Some time ago a chance allusion to hypnotism brought forth an eager inquiry from the patient's husband, a salesman, with reference to its availability in his business. On the other hand, another patient, also a salesman held that the furthest one kept from such influence over a prospective buyer, the better would be the results ultimately, since there would

be the genuine satisfaction of actual needs and desires. Recently, we have learned that there is a well established system of psychology as applied to salesmanship and business management, with text books and formal courses in instruction, by mail and personal teaching. The object of this system is to ascertain who can and who cannot be influenced by the will of the salesman, who is best adapted to general executive functions or to carrying out details, and various other problems arising in business. From a somewhat popular lecture, we infer that this system is a mixture of phrenology, physiognomy and suggestion, and that it has a technical nomenclature of its own, derived from various sciences. Men are classified as acid and alkaline in type, though we were unable to grasp the subtle distinction, since the speaker's conception of these terms in their chemic sense was quite different from that of the chemist. They are also classified as hatchet-faced and banana-faced, meaning convex and concave profiles. Mathematic formulae are also employed to illustrate possibilities of business suasion though, as the formulae which we saw given were incorrect, we were unable to follow the speaker to his conclusions. The speaker demonstrated his points by mental vivisections of victims from the audience; one of the victims yielding complacently to the process, the other squirming and denying the analysis of his business character.

It is interesting for the medical profession to know that business men are seeking for a practical application of psychology. If, as seems to be the case, a considerable number believe that even the blind gropings of comparatively or entirely untrained men, have already secured results of practical value, it may be worth while for expert psychiatrists to look into the matter and see if something can be developed on a sound foundation of fact. If not, and the whole attempt is chimeric, that fact would save time and trouble.

National Guard or Continental Army?

Our brief allusion to this problem has aroused considerable interest and one of the members of the medical staff of the local Guard, has sent a reprint of the address of Maj. Gen. John F. O'Ryan, commanding N. Y. Div. before the Convention of the National Guard Assn. at San Francisco, Nov. 11. He presents both sides fairly but holds that the National Guard should be developed, rather than a new army instituted, because the former has quarters and equipment, can give training throughout the year with only the ordinary business vacation in the field, can keep track of members and, in an emer-

gency, more rapidly assemble retired soldiers and new recruits.

These advantages have a special application to the medical profession. War on such a scale as is now being waged in Europe, would require the services of nearly every physician of proper age and physical fitness. In a sense, the medical staff of an army does not need military training. That is to say, actual professional duties are either part of the experience of the individual doctor or must be learned according to actual conditions which vary for different wars and whose management is in accordance with well-known general principles. What may be called red-tape, can be acquired by men of the average intelligence and education of the medical profession, very quickly. Strictly military precedents are not of great practical importance and strictly military procedures are beyond the province of the surgeon. But, in another sense, not one of these statements is true. It is highly desirable that the surgeon should have a reasonable comprehension of the duties of his associate officers and of the men who will be, in a sense, under his command, in a military as well as in a professional sense. Something more than aesthetics demands that he should be more than a civilian in uniform and with a commission.

Perhaps the problem can be best expressed in a concrete, local form. Such a war as is conceivable as a reason for military preparedness, would enlist 200 or possibly 300 physicians from Buffalo. The local National Guard at present numbers about 1500. If brought to its full quota of about 2500-3000, it would still afford positions for only 10 or 12 physicians. It would be impossible, except under the compulsion of absolute necessity, to train the large remainder of physicians in a Continental Army, intensively, in camp at a distance during a period of two or three months. But it would be perfectly feasible to establish schools for them, at fairly convenient times, during the year, under the auspices of the local regiments in their armories. The regular army officer is trained at West Point, as a private soldier, not because it is expected that he will subsequently serve as a private, but because he can best command and comprehend the psychology and conditions of the private from having had this experience. The same argument applies also to medical officers who should have, at least, the rudimentary drill of the private. It is out of the question for the average physician to absent himself from his work for any such period as is required for intensive camp instruction. In this particular, he is differently circumstanced from the analogous business man who actually spends very little time at his desk, even in his normal business life.

It occurs to us as very pertinent to inquire whether our local

National Guard has the authority and can arrange for classes in military training, general and with special reference to the needs of the military surgeon and how many physicians would, solely as volunteers and as a matter of patriotism, avail themselves of such classes. One somewhat delicate subordinate question presents itself: Suppose that an individual is beyond the established military age, but is habitually doing the work and enjoying the recreations of a much younger man; should age alone exempt him from his duty to his country: and supposing that he is personally willing to waive the age-exemption, will his country accept his services on the basis of his arteries, muscles and habits, or refuse them on the basis of the family Bible?

The Water Bug as a Carrier of Infection.

Any one who will look up the words water bug, roach, cock roach, croton bug, in Webster, will understand the difficulty in accurately defining the subject of this article and will note an interesting discrepancy between the dictionary definitions and the common local use of the term. However, it is perhaps just as well to ignore questions of entomologic detail and to confine our attention to the more practical points bearing on the possibility of disease conveyance.

The water bug is misnamed. It is easily drowned and is not especially attracted by dampness. It might more properly be called the water-pipe bug but only because pipes afford it avenues of approach, apparently no greater favorites than cracks in wood work and tiling, loose paper, etc. It is not markedly an indication of filth, although accumulations of garbage attract it. But it is equally attracted by fresh foods left exposed, transient accumulations of crumbs, fruit parings, etc., and it is not discouraged by scouring floors, walls, etc. It is, to some degree, nocturnal in its habits but probably merely because less subject to human disturbance than in the day time. One is tempted to ascribe considerable intelligence to the water bug, so rapidly does it seek a place of hiding on the mere approach of man and so agile is it in dodging attempts at capture. It will also evade various bug powders if left in heaps or if in making a ring around a room, the door ways are left free. The quickness with which it senses food suggests a well developed olfactory organ.

In common with practically all insects, it is killed by any powder, even if innocuous to higher animals, on account of mechanic blocking of the breathing tubes. But a safe powder becomes innocuous to the insect also as it becomes moist, as it inevitably does after a few days; powders are objectionable to housewives, and the bug avoids the powder and is only tem-

porarily discouraged from his visits. Curiously enough, the water bug appears to avoid rooms with carpets and rugs and confines himself mostly to kitchens, pantries, halls and bath rooms. At first thought, the explanation appears to be the call of food but this scarcely applies to bath rooms nor do crumbs in dining rooms especially attract the bug. Neither does the explanation as to pipes apply, for radiator pipes in ordinary living rooms afford almost as good entries as those of bath rooms and kitchens, especially in summer when they are not hot.

As in campaigns against other vermin, co-operation is necessary. A separate house can be rid of the pest by persistence but, in hotels and flat buildings, no amount of cleanliness and extermination is of avail except temporarily, unless undertaken for the whole building at once and, even then, fresh hoards sooner or later arrive from some other source.

It is scarcely necessary to undertake bacteriologic experiments to show the reality of the danger of the water bug especially as this danger, in actual environments is limited to non-specific germs and to the accidental presence of specific germs. Recently, it has been claimed to carry an alga that causes cancer—an English theory as yet without demonstration. The water bug crawls rapidly and for considerable distances, without much regard for gravity. It gets onto towels, wash cloths, tooth brushes, etc., in the bath room, on to dishes and food in the pantry and kitchen. It brings whatever germs may be attached in passage along floors, over garbage, over small leaks in closets and drains.

Fly paper catches a few of the smaller and less experienced bugs, bichlorid, potassium oxalate, hydronaphthol and various other antiseptics in safe strength are inefficient. Ordinary methods by powders, low temperature flames, odorous substances such as gasoline, turpentine, etc., and individual slaughter are either of temporary and local benefit, unsatisfactory or otherwise objectionable. A serious problem confronts sanitarians in regard to this little pest.

BOOK REVIEWS

Books mentioned may be inspected at and ordered through this office. So far as possible, books received in any month will be reviewed in the issue of the second month following.

Automobile Repairing Made Easy. Victor W. Page, M. E.
Published by the Norman W. Henley Pub. Co., 132 Nassau Street, N. Y. 1060 pages, over 1000 specially made engravings, \$3.00.

This book considers the various types of the component parts of automobiles in general, describes shop equipment, methods of demounting and assembling, etc. Its title should not be taken too literally by the amateur, possessed of a monkey wrench, screw driver and hammer, and who wishes merely to keep his own car in order. It is intended for the mechanic, professional or otherwise, who seriously intends to enter thoroughly into the subject. From this standpoint, the subject has been rendered as easy as possible. It includes, however, a good many subjects, such as carbon-removal, anti-freezing solutions, adjustment of spark plugs and the like, which appeal to the car owner who wishes to attend to certain details but who does not intend to equip a shop for all sorts of repair work. It also gives a practical understanding of the automobile, valuable to any owner who cannot always be personally attended by a mechanic and who needs some estimate of the value of services rendered.

Transactions of the American Urological Association, 14th Annual Meeting at Baltimore, April 13, 1915. 479 pages, illustrated. Publication Committee: Hugh Cabot, R. F. O'Neil, Geo. G. Smith.

This work is a symposium of the highest value. Two papers are of especial interest to the internist: Victor C. Pedersen's on Limitations of Functional Tests of the Kidneys, and Ernest F. King's report of a case of Alkaptonuria with references to literature.

A Brief Bibliography of Books Relating to the Latin-American Republics. Peter H. Goldsmith. Published by the McMillan Co., N. Y. 107 pages.

Brief reviews are given in many instances, to save time when the scope of the work or its importance might not be understood from the title. Invaluable for anyone attempting to make a study of our southern neighbors, from almost any standpoint. So far as our readers are concerned, we would particularly urge that anyone inclined to make investments, or to take up practice in the Spanish speaking countries of this continent, should read up thoroughly on the general economic, political and geographic topics.

Introduction to the Study of Maya Hieroglyphs. S. G. Morley. Bulletin No. 57 of the U. S. Bureau of Ethnology.

This treats almost entirely of the numeral signs and the wonderfully elaborate calendar. Otherwise, very little ad-

vance has been made toward deciphering the glyphs, and it is not even established how far they were ideographic and how far phonetic by the use of rebuses. Some general information is included. The brief description of the regular army and the raising of men for war is especially interesting at present.

The Obstetric Quiz for Nurses, Hilda Elizabeth Carlson, N. Y. Published by the Rebman Co., N. Y. 316 pages, \$1.50.

A logical presentation of the various subjects of medicine needed for nursing, is arranged under questions in black letters. Thus, while literally a quiz compend, the book is really much more.

Hospitals and the Law, E. V. Mitchell, LL.B., University of S. Dakota. Published by the Rebman Co., N. Y. 178 pages, \$1.75.

Rights and responsibilities, officials and attendants, administration and regulation, foundation and organization, remuneration and support are the main topics considered. A special chapter deals with military and naval hospitals. A table of cases cited will prove very useful in litigation, and the index allows one to refer to various problems that may arise. The value of such a work to any hospital, scarcely needs to be emphasized. Like the individual physician, the hospital bears an important relation to the community, one which imposes many duties, including those of a purely technical compliance with a multiplicity of laws and one which makes it vulnerable to attacks from various standpoints.

Rockefeller Foundation, Annual Report 1913-14, second edition.

This is largely an executive report but includes interesting descriptions of the work of the international commission in foreign lands, investigation of industrial conditions, mental hygiene, war relief, etc.

Theory and Practice of Blood Letting, Heinrich Stern, M. D., LL.D., N. Y. Published by the Rebman Co., N. Y. 264 pages, illustrated, \$2.50.

While this work deals in an interesting way with ancient and mediaeval medical history, it is far more than a literary review of an extinct practice. Blood letting is a therapeutic measure approved by centuries of experience. While carried to an excess in the past it has, in recent times, been greatly

neglected, partly from a reaction against such excess, partly because it involves a degree of manual skill a psychic element a little too surgical for the strict internist and not surgical enough for the surgeon who is essentially an operator. Besides, there has been lacking a practical critical guide, in accordance with modern scientific knowledge and the practical experience of living practitioners. This lack, Dr. Stern has supplied, with the broad and deep study which has characterized his research along various other lines.

An Introduction to Bacteriology for Nurses, Harry W. Carey, A. B., M. D., Troy, N. Y. Published by the F. A. Davis Co., Philadelphia. 144 pages, illustrated, \$1.00.

If this book did nothing more than present to the nurse, in readable and understandable form, the general principles of teriology, infection, immunity, etc., it would serve a useful purpose. There is, however, an economic demand for office nurses and special assistants who must combine something of the practical knowledge of a technical assistant with the ordinary services of a nurse. Such positions are often highly desirable from the nurse's standpoint, and the surgeon, particularly, is inclined to offer them to nurses possessed of a moderate degree of technical skill who can be trained along special lines of interest. This book, therefore, fills a genuine want, and it has been well designed to meet its purpose.

Speaking of Operations, Irving S. Cobb. Published by the Geo. H. Doran Co., 38 W. 32d, N. Y. 64 pages, 50 cents.

This is, so to speak, a worm's-eye view of surgery. Our profession is made the butt of a good deal of good natured wit and we trust that all members who read the book will take it with equal good nature and may derive some lessons from it, especially with reference to the unnecessarily elaborate rituals which some men throw about their examinations and procedures. The author's attitude is illustrated in the following: "When I read in the medical journals that the eminent Dr. Somebody has succeeded in transferring the interior department of a pelican to a pointer pup and vice versa, with such success that the pup drowned while diving for minnows, and the pelican barked himself to death baying at the moon, I am interested but fail to see wherein the treatment of infantile paralysis has been materially advanced. On the other hand, I would rather the kind and gentle Belgian hare should be offered up as a sacrifice . . . than that I should have something painful which can be avoided through making him a martyr." We are inclined to take this jest so seriously

as to predict that the whole problem as to control of vivisection will be worked out on just about the lines suggested.

This book is accompanied with a report of a dinner tendered to Mr. Cobb, at the Waldorf-Astoria, April 25, 1915.

39th Annual Report of the Buffalo Eye and Ear Infirmary, for the year to Oct. 1, 1915.

As this pamphlet is already in the hands of the profession, we merely commend the excellent work of the institution.

Saunders' Catalogue of Books; Medicine, Surgery, Veterinary, Dentistry, Nursing. W. B. Saunders Co., W. Washington Square, Philadelphia.

This is a well illustrated descriptive work. We advise those who have not received it to apply to the firm.

Annual Report of the Surgeon General of the Public Health Service, 1915. Government Printing Office, Washington.

This is not merely a financial and executive report but includes a brief description of sanitary work along various lines. The needs of the service are stated to be: More commissioned officers, a moderate increase in the clerical force, additional appropriations for rural sanitary study, control of occupational diseases, of pollution of coastal waters, for the preparation of viruses, etc, for the segregation and care of lepers, and certain repairs and additions to buildings. There are few government services which repay their maintenance so directly and so well as this. It is perhaps especially necessary at this time, when there is so much discussion of military and naval preparedness, to emphasize the fact that this service should not only be adequately supported so far as its present functions and the immediately necessary extension of its usefulness are concerned, but that it should be brought up to the ideal maximum by increase of its powers and appropriations. Up to the point at which national supervision would duplicate or conflict with necessary local activities in regard to the public health, no expenditure of the public funds can produce a higher degree of efficiency than through the development of this service. If any special argument is needed to convince legislators who might be inclined to view the subject of preparedness in too narrow a spirit, it may be said that this service is so organized that, by comparatively slight additional training of its personnel, it could, in an emergency, be transferred bodily to the military and naval medical duties which are so important an item in war.

Transactions of the Section on Obstetrics, Gynaecology and Abdominal Surgery of the A. M. A. San Francisco Meeting, June 22-25, 1915. Reprinted from the Jour. of the A. M. A.

This is an illustrated, cloth bound volume of 250 pages containing papers of the highest merit, and is a most convenient form in which they may be preserved by those especially interested.

Laboratory Methods, with Special Reference to the Needs of the General Practitioner, by B. G. R. and E. G. C. Williams, with an introduction by Victor C. Vaughan, M. D., LL.D. Published by the C. V. Mosby Co., St. Louis. 3d edition, 43 engravings, 214 pages, \$2.50.

We have previously reviewed the first two editions of this work. By its eminently practical adaptation of scientific truth to clinical medicine and the rare ability of its authors to gauge the time, apparatus and skill of the practicing physician along laboratory lines, it has made good. On this account the authors have been conservative in adding new material. Of the large number of tests proposed, since the appearance of the second edition, many have been tried out and abandoned; others require confirmation before they should be placed before the profession generally; others are too complicated; still others are obviously impracticable or based on false conceptions. The principal additions are: Elastic Tissue Staining; Salting-out Method for Tubercle Bacilli, An Invariable Blood Stain; A Dressing for Laboratory Tables.

Diseases of the Skin, Henry R. Hazen, A. B., M. D., Washington, D. C. Published by the C. V. Mosby Co., St. Louis. 233 illustrations, including 4 plates in color, 539 pages.

About a sixth of the book deals with general principles of anatomy and physiology, diagnosis, treatment, hygiene, etc. The remainder is a classified discussion of the various lesions and diseases. Neoplasms are included, as they come under the general subject of dermatology and brief attention is given to the hair, nails and perspiration. The description and discussion of the diseases is clear and concise, and the illustrations, paper and print, are of the best.

Zeitkinder, by Dr. Henry Jones Mulford.

This book was reviewed in our last issue, but we wish to recur to the prologue in which Lucifer sends his imps to curse the baby about to be born. The author takes up an old super-

stitution and turns it in the direction of reality by naming the imps: Ignorance, Selfishness, Doubt and Crime. One of the best methods of criticism of a book is the test of what ultimately holds the attention rather than the elements that first appeal to the mind as most excellent. In getting at the truth in the old superstitious notion a most valuable lesson is taught. We wish that this drama could be filmed and see no reason why it could not be. It not only affords many strong scenes, entertaining in themselves, but it is most distinctly a play with a purpose, a vital purpose and one that is sensibly brought to the mind of the reader.

TOPICS OF PUBLIC INTEREST.

Harrison Law With Reference to Osteopaths. Treasury decision 2232 revokes 2172 and is as follows: "Osteopaths should be permitted to register and pay special tax . . . provided they are registered as physicians or practitioners under the laws of the state." This ruling is all right if osteopaths are either recognized as legally qualified physicians or are not allowed to practice at all. But, in many states, they are given a legal status of their own without being ranked as physicians. In such states, the osteopath must, nevertheless, by the Treasury decision, fill out and swear to the same statements as regular physicians, including the statement that he is practicing medicine. In other words, the national law requires him to commit perjury under the state law. Not being an osteopath, a government official nor a lawyer, we refuse to worry about this inconsistency, but we reiterate the opinion, which is quite valueless, that the Harrison act in its entirety is unconstitutional, both because it is an invasion of state rights and because it is post facto, in applying its provisions to persons already licensed to practice medicine under a broad definition and because it affects the physician who has acquired in good faith, reasonable quantities of drugs, in a perfectly legal way, for proper use. It gets around the point of technical unconstitutionality by imposing a tax in direct violation of general principles against class legislation, and without even the excuse of raising enough money to amount to any thing beyond expenses, if indeed, it pays expenses. Whatever real good the law accomplishes could be secured by proper provision for the care and restraint of drug habitues and the ordinary legal processes directed against physicians, druggists and others, who cater to pathologic habits.

Medical Incomes. Richmond, Va., has about 400 physicians, 33 of whom have, according to state tax reports, incomes of

\$4,000 or over (gross). Of these, 10 (8 medical men, 2 surgeons) come within the \$5,000 limit. 17 have incomes between \$5,000 and \$10,000—12 medical men, 4 surgeons, 1 eye and ear specialist. 2 have incomes of \$10,000—1 surgeon and 1 eye and ear specialist. The 3 remaining (total 32 and not 33—Ed.) are all surgeons, with incomes of \$11,000; \$23,000; and \$42,000. According to this statement, 92% of the profession in Richmond, have incomes of less than \$2,000, the limit of exemption. (Charlotte Med. Jour., Dec. 1915.)

Buffalo Department of Health.

	1913	1914	1916
Population	446,889	454,112	461,888
Total births	11,867	12,661	12,643
Total birth rate per 1000 population, (excluding still births) .	26.55	27.77	27.36
Total deaths	7,043	7,040	6,853
Death rate per 1000 population, (including non-residents) ...	15.76	15.50	14.83
Death rate per 1000 population, (excluding non-residents) ...	14.72	14.46	13.99
Total deaths under 1 year.....	1,631	1,533	1,364
Infant death rate per 1000 births.	137	121	107
Total cases of typhoid fever.....	502	417	248
Total deaths from typhoid fever..	68	72	46
Typhoid death rate per 100,000 population	12.9	15.85	9.9
Total marriages	4,928	4,943	4,803

(Note: This report should be carefully studied. Such low mortality rates do not happen but are secured only by hard work. Credit is due Dr. Fronczak and his staff).

Law Regarding Sale of Second-Hand Automobiles. The seller must file immediately with the Secretary of State of N. Y., a report of date, registry number and name and address of purchaser. The latter must, within ten days, if the car has previously been licensed, file a vendee's affidavit and pay a fee of \$1.00.

The American Volunteer Motor Ambulance Corps was established at the beginning of the war by Mr. Eliot. For several months it has been attached as the ambulance corps to one of the French Army Corps. It has 50 automobiles, mostly French makes, but including some Fords, 50 volunteer and 50 hired chauffeurs. Ten volunteers are needed at once. Enlistment is for three months' service. All that is necessary is good health and good temper, ability to drive a car, and submission to anti-typhoid inoculation, though some knowledge

of French is desirable. This is not a medical or surgical professional service. Volunteers are expected to pay transportation and about \$50 a month for extra comforts beyond regular army rations and maintenance, but it is expected that some provision can be made for those unable to afford this expense. Address Eliot Norton, Counsellor-at-Law, 2 Rector Street, N. Y. City.

Reasonable Application of Law on Birth Certificates. Many suits have been made under the state law providing that birth certificates shall be filed within five days. Several physicians have pleaded guilty and paid nominal fines—although five dollars, allowing for the fact that on the average basis of collections, it means seven or eight dollars' worth of work or a full day for the average physician, is not really nominal—after complying with the law but because the mail miscarried. Dr. Julius Richter of Buffalo defended his case. He mailed a certificate before leaving town, and his trip was unexpectedly prolonged to three weeks. Judge Hager acquitted him and established the precedent that the law should be enforced with reasonable allowance for circumstances. A verdict of this sort is welcome, not so much because of individual sparing of consequences, but it engenders a conception of the law in general as protective, as something to be respected, not as an arbitrary, unreasoning force. Birth statistics are valuable both from the standpoint of medical sociology, but for the protection of individual rights and as a social comfort. For example, we know of a person whose happiness and self-esteem has been considerably enhanced because a certain little German church kept records back in the early part of the 17th century, and of another who has been correspondingly discomfited because certain other records were burned by the British troops during the Revolution. But it almost never happens that any practical harm arises from delay. We may allude to one other point: Physicians have been criticized for not reporting the first name of a child but have designated it as Baby ————. In many such instances, the name is not given for weeks or months, and it seems to us that the responsibility should devolve upon the parents.

Drug Addicts in Buffalo. During 1915, Dr. B. Ross Nairn examined for the Health Dept. 468 persons. 194 were adjudged insane. The crusade against narcotics and the establishment of a municipal ward for treatment, has diminished the evil considerably.

About 30,000,000 Bushels of Wheat are in storage in boats in the Buffalo harbors—enough to feed the entire population

of the state of N. Y. for half a year if it were possible to use wheat products as the sole basis of nutrition, and enough for a year on a liberal allowance of actual physiologic consumption of cereal foods.

The Buffalo Emergent Home Care Society, Inc., is organized to furnish at cost nursing or domestic service in case of sickness, thus appealing to the great class that lies between charity and ample means for providing anything necessary to the comfort of the sick and their families. Four grades of help are provided: graduate nurses, non-graduate household nurses, household helpers to relieve members of the family from domestic cares, the supervising nurse, who will visit the family as needed, give advice and supervise untrained assistants. Three classes of membership are listed: active, paying \$1.00 per year; fellows, including corporations, firms, lodges and other associations, paying \$5.00; patrons, including individuals or aggregations of individuals, paying \$500 at any time. The officers are as follows: President, Wm. E. McLennan; Vice-Presidents, Dr. James E. King, Rev. Edward C. Fellowes, Dr. Edith R. Hatch; Secretary, Dr. Franklin W. Barrows; Treasurer, Dr. A. T. Lytle. The Superintendent is Mrs Gertrude W. Boyd, R. N. Day and night calls will be received on North 1671 or Federal 47161.

Dry States. Colorado, Iowa, Washington, Oregon, Idaho, South Carolina became dry January 1. Virginia will become so November 1, making a total of 19. Nebraska, California, Michigan, South Dakota, Vermont and Alaska will vote on state prohibition this year.

The Emergency Hospital of Buffalo has undertaken a successful campaign to raise \$7,000 for an X-ray equipment.

Exhaust Fumes. Dr. Hoffman, Coroner, states that six deaths occurred from the exhaust fumes of automobiles in garages, in Chicago last year. He suggests that when engines are run more than momentarily in garages, a pipe should be attached to the exhaust and conducted out doors. A Rochester physician and his chauffeur were very nearly killed by this cause a few years ago. The danger seems to lie especially with the production of carbon monoxid. A general warning should be issued and physicians should understand the nature of the case before being called in an emergency.

High Mortality of Modern Warfare. While various administrative and technical advances have reduced the mortality of the wounded in base hospitals to a low figure, recent Eng-

lish army reports show that 41.5% of privates struck are killed and 55% of officers. It is scarcely necessary to explain that the word "killed" does not imply instant death, and that many of the wounded die. The distinction, we understand, is according to findings at the time of collection of the wounded, but we are not certain that those dying of wounds soon after rescue are not included among the killed, and certain allusions seem to imply that the discrimination is made according to whether or not the mortally wounded reach the second line of relief stations. Statistics of 12 great battles of the Civil War give a total of 23,458 killed and 120,859 wounded, the latter including mortally wounded. Thus, the ratio of killed to the total struck was 16.26%. But the missing must also be reckoned with. Veterans of Gettysburg declared that missing meant killed for that battle, and largely for others. If all the missing of the 12 great Civil War battles are included, as killed, 33.75% of those struck were killed, but this is an overestimate, for many of the missing were captured. While exact statements are impossible, for the reason that the prime object of warfare is very far from the collection of statistics, it has been generally held, almost as an axiom of modern warfare, that the killed were about a quarter of the total struck. It has also been prophecied, with few dissenting voices, that high velocity bullets would produce, as a rule, less damage than the older ones. Of course, allowance was not made for the unprecedented use of artillery in the present war, and the equally unprecedented use of trenches with the corresponding increase of head wounds.

Malpractice Insurance has been ordered canceled in Ohio, by the State Superintendent of Insurance, on the ground that it is virtually insurance against the penalty of lack of skill or carelessness, and hence in contravention of public policy. The defense afforded by State Medical societies seems to avoid this tendency and, at the same time, protect the careful and conscientious practitioner from blackmail.

Establishment of Department of Hygiene, Sanitation and Epidemiology is announced by the H. K. Mulford Company under the executive management of Thomas W. Jackson, M. D., expert in preventive medicine, sanitation and the study and control of epidemic diseases. The most important subjects before the American people at the present time relate to the public health. Work in this field is frequently beyond the reach of the existing health and sanitary departments of the various municipalities and smaller towns, on account of limited appropriations.

The department does not propose to enter into competition

with the constituted public health authorities, local, state or federal, but to aid and assist these authorities in every possible way. The work is essentially one of service and education, and will be developed along these lines. The resources and equipment of the Mulford Laboratories, chemical and bacteriological, will be utilized, thus placing at the disposal of the new department the entire laboratory facilities and expert services of the H. K. Mulford Company.

Harrison Law Ruling. Orthoform is included as a narcotic. The next step will be the inclusion of the hot water bag.

Railroad Statistics. 1914 bulletin No. 81, Bureau of Railway Economics. Mileage 387,208; revenue per mile \$11,482; cost per mile \$7,968. The total number of employees of all kinds was 1,695,483, who received \$1,373,000,000 in salaries and wages, an average of nearly \$1,000 a year apiece. 35,258,000,000 passengers were carried one mile, an average of about 352 miles per year for every inhabitant of the U. S. 9,893 persons were killed: 5,471 trespassers, 2,850 employees, 1,307 non-trespassers and 265 passengers. 79,388 persons were injured: 6,354 trespassers, 51,938 employees, 15,121 passengers. The difference between mortality and traumatisms for trespassers is noteworthy. There is an economic problem suggested by these statistics, not commonly discussed and confirmed by general impressions. Omitting travel for pleasure and that by commercial travelers so-called, the amount of time spent on business trips by the average man in business, beyond the grade of clerk, is surprising to one who, like the physician, is compelled to keep regular office hours. It is obvious that, however profitable this absentee method of conducting business may be to the individual or firm, it represents in the aggregate, an enormous economic waste, not so much in the way of direct expense for railroad fares as in loss of time and efficiency.

1,000 Horses have recently been in use by the N. Y. City Health Dept. to produce tetanus antitoxin. Much of this has been sold to Europe, at \$65 per liter, a total profit of \$35,000 having been made. It has been decided, however, to reduce the plant so as to provide only for the normal local demand, as commercial firms have developed means for handling the trade.

Narcotic Law Ruling. Truax, Greene & Co. of Chicago have been found guilty of selling cocaine to a licensed but not practicing physician, under a local ordinance of the city. Except to mitigate the penalty by showing absence of criminal intent,

it was held not to be a defence that the clerk who made the sale had known the doctor as a practicing physician, and supposed that he wanted the drug for legitimate professional use.

Witthaus Estate. The N. Y. Academy of Medicine will receive more than \$100,000 from the estate of the late Dr. R. A. Witthaus, besides his books. This fund was intended for the maintenance and extension of the library, and it was desired by Dr. Witthaus that the library be kept open Sundays, this wish having been anticipated by the Academy.

Guano and the War. Peruvian guano deposits are a very important source of the world's supply of fixed nitrogen. The enormous consumption of nitrogenous compounds in explosives threatens to exhaust the stores of the belligerent nations. During the Civil War the South especially found it difficult to maintain an adequate supply of nitrates, and it was seriously proposed, as a patriotic duty, to save urine to recoup this supply. Chili saltpeter (sodium nitrate) is another important source of nitrogen for commercial and military purposes. Some years ago a novelist wrote a story based on the assumption that the extraction of nitrogen from the air for the purpose of manufacturing protein and nitrogen compounds of a commercial and military nature, on a large scale by the various nations, would so increase the oxygen content of the air as to cause a species of intoxication. It is highly improbable that such an increase of oxygen would result in such symptoms—whose influence on social and diplomatic life makes up the plot of the story—and more than an increase in the supply of water would tend to dropsy. Probably respiration would become more superficial or less frequent or both, and the only appreciable influence on human life would be from the greatly increased tendency to conflagrations of all kinds. Quite as interesting a story could have been developed on this basis instead of a physiologic speculation. However, the greatest conceivable extraction of nitrogen from the air, would have no appreciable influence on the percentage of oxygen for some centuries. A few years after the appearance of this story, a plant was actually started at Niagara Falls for the purpose of fixing atmospheric nitrogen electrically. We understand, however, that this process is not yet on a practical scale. Thus the exhausting of natural deposits of fixed nitrogen is a very serious matter, perhaps as serious for the ultimate consideration of humanity as the more direct and obvious results of an extensive war.

The Case of Lydston vs. the American Medical Association. Briefly stated the case is as follows: Dr. Lydston, five years

ago, brought suit to mandamus the state's attorney to bring quo warranto proceedings against the American Medical Association, citing that it was illegally organized in that, as a corporation of the State of Illinois and subject to its laws, it held its annual meetings outside of the state and did not elect its trustees by vote of the members but chose them indirectly by votes of persons not entitled to vote as members of the association.

Technically the case was a petition for mandamus made by Dr. Lydston to compel the state's attorney to institute quo warranto proceedings against the association and its alleged illegally elected trustees. Practically the case was and continually has been defended and fought through all courts, not by the state's attorney of Cook County, but by Frederick Z. Marx, attorney for the American Medical Association.

The defendant demurred and the demurrer was sustained by the Circuit Court. Lydston appealed to the Appellate Court, which reversed the decision of the Circuit Court, holding that it erred in sustaining the demurrer. Thereafter, **by Stipulation of parties to the suit**, the Appellate Court set aside its judgment remanding the case, overruled the demurrer and entered a final judgment awarding a peremptory writ of mandamus against the state's attorney. The defendant appealed to the Supreme Court, in spite of his consent to the attitude of the Appellate Court.

The Supreme Court held that the Appellate Court had no business to change its former judgment, in spite of the agreement of the parties, and ordered the latter court to enter its original judgment which had reversed the Circuit Court. Thereupon the Circuit Court obeyed the Appellate Court, reversing its judgment sustaining the demurrer of the state's attorney (A. M. A.) and entering a judgment which ordered the mandamus.

November 8, 1915, the Appellate Court affirmed the final judgment of the Circuit Court. December 20, the Supreme Court denied the defendant's petition for a writ of certiorari which asked the Supreme Court to hear the case on appeal. There is, therefore, nothing left for the state's attorney but to serve the writ of quo warranto against the American Medical Association.

The case has already been heard and decided on its merits. The original petition of Dr. Lydston for quo warranto stated the reasons therefor and these reasons were incorporated in the subsequent arguments in the different courts. The attorney for the A. M. A. (ostensibly for the state's attorney), Mr. Marx, cited precedents for his side of the case and these are overruled in the decisions. If the case goes again before these courts the judgments will be reaffirmed because the

questions at issue have already been argued before the courts and have been the basis of the decisions already handed down.

From the above it is evident that the Association must sooner or later reorganize along democratic lines. What these lines shall be depends upon the members into whose hands the courts have practically delivered the Association.

Quoted in full from the Illinois Medical Journal, Jan. 1916, the official organ of Illinois State Medical Society.

SOCIETY MEETINGS

Brief reports and announcements of meetings of societies of Western New York, and those of general scope, are requested from Secretaries. Copy should be on hand the fifteenth of the month. Full transactions will be published at cost of composition.

DOCTOR: Is your Society properly represented here? If not, please bring our standing announcement to the attention of the members.

Buffalo Academy of Medicine, Section of Pathology, Dec. 28, X-ray Plates of Some Interesting Heart and Lung Conditions in Children. Dr. Irving M. Snow and Dr. Frank N. Potts; Dr. Baldwin Mann. Report of Blood Cultures Observed in Pathologic Laboratory of Roosevelt Hospital, May, 1909 to Jan. 1915.

Section of Surgery, Jan. 5, Diagnosis of Renal and Ureteral Calculi, with X-ray Plates, Dr. Hugh Cabot, Boston.

Section of Medicine, Jan. 12, Pathologic Diagnosis, Dr. B. T. Simpson; Importance of Dietetic and Medical Means in Prevention of Constitutional Diseases—Scurvy, Spasmophilic Diathesis, Exudative Diathesis and Rickets, Dr. H. J. Gerstenberger, Prof. of Paediatrics, Western Reserve University, Cleveland.

Section of Obstetrics and Gynaecology, Jan. 19, Prolapse of Uterus, Dr. Channing W. Barrett, Chicago. (Lantern slides).

The Medical Society of the County of Niagara held a banquet Jan. 12 and installed the following officers: Pres., H. A. Wilmet, Middleport; V. P., John C. Plain, Ransomeville; Sec., L. C. Hurlbut, Lockport; Treas., Walter A. Scott, Niagara Falls; to 8th Dist. Branch, Edwin Shoemaker, Newfane.

Rochester Academy of Medicine. Annual Meeting, with Section I, Jan. 12. Abdominal Diagnosis, Dr. Charles D. Young; Clinical Significance of Abdominal Ptoses, Dr. John M. Swan. Officers were elected as follows: President, Joseph R. Culkin;

Vice-Presidents, Robert T. French, Charles W. Hennington, Lucius L. Button, Myron B. Palmer; Treasurer, Nathan D. McDowell; Trustees, William V. Ewers, Charles A. Darrow, Joseph W. Magill; Councillors, John M. Swan, George W. Goler; Member Library Committee, Charles W. Hennington.

Medical Association of Central New York.

Minutes of 47th Annual Meeting, continued from last issue.

The PRESIDENT: I think in spite of the fact that we have but a few minutes before luncheon we will proceed to the business meeting. The first thing is the reading of the minutes of the previous meeting.

The secretary read the minutes of the last meeting.

Vice-President Benedict in the Chair.

The VICE-PRESIDENT: You have heard the minutes of the last meeting read: Are there any corrections?

It was moved and seconded that the minutes of the last meeting be approved as read, and filed.

Carried.

President Boswell in the chair.

The Secretary read a communication from the State Medical Journal, addressed to the Secretary, regarding the publication of the Proceedings of the Association.

DR. DOWD, Buffalo: I heard this discussion in Syracuse last year, and of course we all realize there was not one single paper published in the New York State Journal last year. Now, this society is limited to Central and Western New York, west of Syracuse and as far as the Pennsylvania line. In this district we have a medical journal which until a very few years ago, published not only most of the papers, but the Transactions; in fact, there was a book issued each year containing everything. I cannot see why it would not be a good idea to go back to that same plan. Therefore, to bring this before the meeting, I will make a motion that it be the consensus of opinion of the members of the Central New York State Medical Society that they have a representative journal for the publication of their Transactions, also for the publication of their papers, and that the Buffalo Medical Journal be designated as such.

The PRESIDENT: I think, Doctor, we will take that up under the head of New Business. I will now call for the report of the Treasurer, Dr. Laurie.

Treasurer's report read.

It was moved and seconded that the Treasurer's report be accepted. Carried.

The PRESIDENT: Before I forget it, I want, in the name of the Society, to thank the Rochester Medical Association for

the use of this building for today's meeting. I think the building has proven to us in Rochester its use as a central gathering point for all the professional men in the city, and I am sure it has made a very convenient and desirable place for this Society to hold its meeting, and therefore in the name of the Society I will thank the Rochester Medical Association for the use of this building. Are the Credential Committee ready to report?

The SECRETARY: There are two names to be acted upon. The two names that are eligible are Dr. Stark and Dr. Leiter, both of Syracuse. I move you, Mr. President, in view of the fact that the Credential Committee is not here, that these men be added to the list of membership of the Society.

Motion seconded and carried.

The PRESIDENT: Has the Publication Committee anything to report?

The SECRETARY: Nothing.

By direction of the President the Stenographer read the motion put by Dr. Dowd in regard to publication of the Proceedings of the Society. (See previous page.)

The PRESIDENT: Is the motion seconded?

Motion seconded.

The PRESIDENT: It is moved and seconded that the Proceedings be published annually, and that the Buffalo Medical Journal be designated to publish such proceedings. Before the discussion opens I should like to call upon some one to give us some idea of the expense that would involve, what they would expect us to do, and some information on the subject.

DR. BENEDICT, Buffalo: Mr. President, I am not prepared to make a definite proposition, but in the past we have made this general offer to societies in the territory of Western New York, that we would publish free the papers just as they would be accepted if contributed privately, and I am very happy to say that such a program as this is practical and available in its entirety, except for the fact that we cannot very well print the beautiful lantern slide demonstrations and some things of that sort, but so far as such material is presented that can be printed it will be. However, for any detail work, which deals with transactions or business reports or matters of that sort, which are not interesting as reading matter to the profession generally, we would expect to receive about what we have got to hand over immediately to the printer, and that of course would be determined on a pro rata basis, and would be the equivalent of about two dollars a printed page, of something like five hundred words. Now, as to obligations, etc.; if re-prints were wanted, as has been the case several years back, that would be simply a transaction with

the printer. The Journal does not furnish re-prints and does not make any profits on them, and has no business interest in them whatever. The Journal would expect to benefit simply by extending its influence as a professional medium, and in such indirect ways as are perfectly obvious.

The PRESIDENT: Having heard this statement of Dr. Benedict, I should like to hear from some of the members on the advisability of undertaking this step. We cannot let such an important matter as this go to a vote without something being said about it.

DR. STOCKTON: I move to refer the matter to the Publication Committee for further consideration.

Amendment seconded.

The PRESIDENT: The amendment is moved to the original motion, that this subject be referred to the Publication Committee for their future communication.

DR. STOCKTON: Refer it to them with power.

The PRESIDENT: The amendment is, that the amendment be referred to the Publication Committee with power to act.

Amendment seconded.

The PRESIDENT: The vote will be taken first on the amendment.

Amendment put to a vote and unanimously carried.

The PRESIDENT: We will now vote on the original motion, that the Society annually publish its transactions, and the Buffalo Medical Journal be designated to so publish them. The question as amended is before you for action. What will you do, gentlemen?

Put to a vote, and carried. *

The PRESIDENT: Dr. Percy, you said you wished to say something to the Society?

DR. PERCY: I want to speak about membership in the Rochester Medical Association. I happen to be Chairman of that committee, and we have three classes of membership, active, associate and non-resident. The dues for non-resident membership are ten dollars annually, and it gives the member the privilege of using this club-house, the cafe and library, and having all the privileges of any active or resident member. If there are any here who would like to join we would be glad to receive their applications.

The PRESIDENT: We will now proceed to any further new business. Nominations for the office of president for the ensuing year are now in order.

*NOTE:—As the editor was elected President of the Association and, therefore, had to appoint the Committee of Publication, he was placed in a rather embarrassing position. In order to be perfectly impartial, the previous year's committee was re-appointed, without knowledge of their attitude on the question. No influence has been brought to bear on them except that they were urged to make a decision as promptly as possible to prevent undue delay of publication if their vote was favorable—as it has been.

DR. DOWD: Mr. President, we are rotating slowly but surely toward the setting sun, and the next meeting is to be held in Buffalo. It is generally customary to have a man from the city in which the meeting is to be held to represent us, and as Dr. Benedict is Vice-President, I offer his name as President for the ensuing year.

DR. STOCKTON seconded the nomination.

There being no other nominations, it was moved and seconded that the Secretary cast one ballot for Dr. A. L. Benedict of Buffalo for President of the Association for the ensuing year. Carried.

The Secretary cast one ballot for Dr. Benedict for President, and the President declared him duly elected President for the ensuing year.

The President called for nominations for First Vice-President.

DR. —————: I would like to present the name of Dr. Heazlett, of Auburn, for First Vice-President.

Seconded.

There being no other nominations, it was moved and seconded that the Secretary cast one ballot for Dr. Heazlett of Auburn for First Vice-President of the Association for the ensuing year. Carried.

The Secretary cast one ballot for Dr. Heazlett for First Vice-President, and the President declared him duly elected First Vice-President for the ensuing year.

The President called for nominations for Second Vice-President.

DR. ————— placed in nomination Dr. Edward Wynkoop, of Syracuse, for the office of Second Vice-President.

Seconded.

There being no other nominations, it was moved and seconded that the Secretary cast one ballot for Dr. Wynkoop of Syracuse for Second Vice-President of the Association for the ensuing year. Carried.

The Secretary cast one ballot for Dr. Wynkoop for Second Vice-President, and the President declared him duly elected Second Vice-President for the ensuing year.

The President called for nominations for the office of Secretary.

The SECRETARY: The office of Secretary is held for two years, and no nomination is to be made at this meeting.

The President called for nominations for Treasurer.

DR. ————— nominated Dr. T. F. Laurie, of Auburn, to succeed himself as Treasurer for the ensuing year.

Seconded.

There being no other nominations, it was moved and seconded that the Secretary cast one ballot for Dr. T. F. Laurie

of Auburn for Treasurer for the ensuing year.

The Secretary cast one ballot for Dr. Laurie for Treasurer, and the President declared him duly elected Treasurer for the ensuing year.

Recess was here taken for luncheon, the afternoon session being called for 2 o'clock.

AFTERNOON SESSION

The PRESIDENT: We will take up the scientific end of the program again, commencing with the Symposium on Cardio-Vascular Disease.

Drs. George W. Ross and Julian Loudon, of Toronto, Canada, presented the following papers:

(1) Modern Methods of Investigation of Cardio-Vascular Diseases.

- a. The Polygraph (with lantern slides).
- b. Blood Cultures.
- c. The Wasserman Reaction.
- d. A Method of Auscultation of the Jugular Veins.
- e. The Electro Cardiograph (with lantern slides); X-Rays (with lantern slides).

DR. ROSS: With your permission I will vary the program that is set forth a little bit. One reason is that the X-Ray method is being covered by Dr. Palmer of Rochester, and it perhaps would take me too long to go into all the set parts of this paper. In behalf of Dr. Loudon and myself I wish to thank you for your kindness in asking us to take part in your meeting.

The PRESIDENT: I think we will have Dr. Palmer's paper on the Roentgen diagnosis and then we will take up the discussion of Dr. Ross's, Dr. Loudon's and Dr. Palmer's papers together.

DR. M. B. PALMER, of Rochester, presented a paper entitled "Roentgen Ray Diagnosis of the Heart and Lungs, with special reference to new growths (with lantern slides).

The PRESIDENT: I will ask Dr. Alsener of Syracuse to open the discussion on the methods of diagnosis of the heart and lungs.

DR. ALSENER: Mr. President, Ladies and Gentlemen: It is a great pleasure to discuss these papers, although I will admit to somewhat of a surprise. The subject which is taken up by the first two speakers, the gentlemen from Toronto, certainly has interested us greatly, and they have done us a great favor by coming here and presenting this subject in such an able fashion. Their subjects, the diagnosis of the changed conditions of the heart and the circulation, are of very great interest, not only because of the importance to many of us, particularly to doctors, but also because of the fact that most of it is quite new. It happened to be my good fortune not

long ago to spend some time with Dr. Sir James Mackenzie, the man who developed the polygraph about which we have heard this afternoon, the man who was really the pioneer in the study of irregularities of the heart; also to see a good deal of the work of Dr. Thomas Lewis in the electro-cardiographic department of the University Hospital, the one who through his development of what Dr. Mackenzie discovered, through his application of the electro-cardiograph, has been able to tell us that there is such a thing as auricular vibration and tell us about auricular flutter. These two men working together have enabled us to recognize the mild, rather mild, symptoms of endo-carditis. The things which Dr. Mackenzie and Dr. Lewis have enabled us to discard are very numerous indeed, and really one is somewhat humiliated to go over this list of things which have been used by all doctors and recommended by the ablest doctors, and they are now known to be absolutely worthless. In earliest times the detection of an irregularity led on the part of the practitioner to more or less reassurance being given the patient, but without the addition of any knowledge at all to the diagnosis of the case. Now we know that premature beats are, practically speaking, not harmful at all, and very common. We know that heart block, even in the beginning stages, even in the stage in which there is nothing but a prolongation of the interval between the contraction of the auricle and the contraction of the ventricle, that even that beginning stage can be easily diagnosed by either the polygraph or the electro-cardiograph, and that also that that is an important thing to recognize, because a person having that defect in the mechanism of the heart is quite likely to develop superior grades of heart block complications, and which are often fatal complications. That thing being recognized early, that is the time to search for the cause, and may result in a cure or at least prevention of any further progress in the case. I remember Dr. Mackenzie saying one day that having recognized that there was something wrong with the heart one should at once raise this question: Is the heart diseased or is it poisoned? Now, every complication, in the beginning a heart block, is due to some form of poison, possibly nicotine, and possibly something absorbed from the intestines, possibly any one of a number of things we have heard about vaguely, and perhaps many things we have not heard about at all, but much of the cardiac irregularity comes primarily from something which is outside of the heart, which comes through the nervous system rather than the heart itself. Another group of cardiac irregularities, the auricular vibration or flutter cases, have been shown so nicely to respond promptly and quite surely to the proper use of digitalis. These two men have also led us to know that it does not matter so much what

preparation of digitalis we use. The old discussion as to whether we use this preparation or that, or this maker or that, is now, if it is not ended it might as well be. There was one point in particular which impressed me as being a very valuable one, and which I think is commonly overlooked. That is this, that the pulse rate should be a very important guide in to a person whose circulation is defective. As was said in the paper, that is now commonly the guide in pulmonary tuberculosis. One does not let a tuberculosis patient overdo just because the fever is gone. So it should be in cardiac cases.

There are many other points in the papers I am sure which might be dwelt on to advantage, but not having in mind making a summary of the thing, I have not a list in my mind, but I feel, Mr. President and Gentlemen, that these papers are of immense value, that they discuss things which we should all be very familiar with, which are of great practical value to our patients.

DR. STOCKTON: Mr. President and Gentlemen: I feel that this is a very admirable illustration of the importance of the newer methods of diagnosis, as they have been presented by Dr. Palmer, by Dr. Loudon and by Dr. Ross. These gentlemen who have come to us from Canada are admirable representatives of their most able clinic in Toronto, and I cannot withhold my word of praise for their two papers. I think Dr. Ross in particular should be congratulated on his ability to state briefly several important matters and to state them so well. I wish to emphasize the importance of the picture which Dr. Ross drew of these cases of infective endo-carditis, and to point out once more the value of what he says in regard to the pulse rate in cases in which there is but moderate variation in temperature, and once more to emphasize his seeming regard for the general appearance and condition and behaviour of his patients. The mental and physical restlessness and irritability, the frequent pulse, the slight temperature and the appearance of illness would attract attention to a case of endo-carditis that might otherwise escape serious notice until such time as irreparable damage is done. If nothing else comes of these papers but that picture I think a good deal has been accomplished. I won't take the time for further discussion.

(To be concluded in our next issue).

Indicanuria. In all cases of indicanuria and highly acid urine due to intestinal acidemia, we are very likely to find traces of serum-albumin and hyaline casts. This does not mean at this time a hopeless nephritis, but it does signify that the injury to the kidney is consequential and must be checked. —Williams.

OUR CONTEMPORARIES

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FAVOR THOSE WHO FAVOR US.

Reproduced from New Mexico Medical Journal, the organ of the state society. There is no east, no west, no north, no south so far as this truth is concerned. It is not even limited to medical journals.

The Buffalo Express celebrated its 70th anniversary January 15, issuing a fac-simile of the first issue, which was surprisingly large and interesting for a new venture. This Journal is, we believe, the only extant periodical of any kind in Western New York that antedates the Express. We extend our hearty congratulations and best wishes.

The American Journal of Orthopaedic Surgery, with the January issue of this year, changed its place of publication from Philadelphia to Boston, and will begin Vol. 14 as a monthly instead of quarterly. Dr. Mark Rogers is now the editor. It will continue to be the official organ of the Am. Orthopaedic Assn. but will not confine itself to the transactions of this association. It is said to be the only journal in English devoted entirely to bone and joint surgery. The publisher is Ernest Gregory. Our best wishes to the Journal in its expansion.

Eugenical News is a new publication, appearing as a small bi-monthly bulletin, from the Eugenics Record office at Cold Spring Harbor, L. I.

We were wrongly informed as to the purchase of the Medical Review of Reviews. This journal will continue as an independent publication, under the editorship of Victor Robinson. Dr. Wm. J. Robinson's connection with the Review of Reviews, except as a contributor and co-operator, covered the years 1910-11; then it passed into the hands of Frederic H. Robinson, who combined Therapeutic Medicine with it. The January issue, beginning Vol. 22, opens with A Review of the Medical Review of Reviews, being the New Editor's Salutory, gives an interesting history of the evolution of the jour-

nal from its beginning. Frederic H. Robinson is the publisher of the Journal.

Dr. Ira S. Weil, formerly editor of the Medical Review of Reviews, has been appointed to the editorial staff of American Medicine.

The Journal of Cancer Research is to be issued quarterly, beginning with January, 1916. This new journal will be the official organ of the American Assn. for Cancer Research, and will be edited by Dr. Richard Weil of New York City, assisted by a committee of the Assn.

Dwarf Small-pox.—The usually sane Buffalo Medical Journal discusses "The Possibility of Vaccination Against the Exanthemata." The nub is, that as vaccination sets up a "dwarf" small-pox, which is not so fatal as the big small-pox, why not give the people all the other diseases in this category in the same manner? This is badly put by us, but it is the gist of the argument. Are not these "dwarf" diseases inflicted on all but a return to the worship of the Hindoo goddess of disease, namely, to voluntarily become ill to appease her? Isn't health better than a "dwarf" disease? Is it necessary to depart from health to retain health?—Homoeopathic Recorder, Jan.

PERSONAL.

Announcement of removal, travel, and other matters of interest are requested. Please report errors in the listing of any physician in the State and other directories, that we may co-operate with the State Society in securing a correct list.

Our associate editor, Dr. Grover W. Wende of Buffalo, has presented to the Buffalo Historical Society, an oil portrait of his brother, the late Ernest Wende, long Health Commissioner of Buffalo. The artist is L. Bernice.

Dr. Horace S. Hutchins of Batavia observed his 87th birthday Jan. 5. He is still in practice.

Dr. Pemberton Lundy of N. Tonawanda has been appointed to the local board of health.

Dr. David F. Wheeler, formerly of Buffalo, has been decorated with the War Cross by the French government, for valorous conduct in the Foreign Legion, on Sept. 28, when he was severely wounded.

Dr. A. H. Bradbury of Grand Island was severely injured by the skidding of his automobile, while responding to a sick call, Dec. 27.

Dr. Lucien Howe of Buffalo, addressed the Hamburg Social Center on Preparedness, Jan. 3.

Dr. Max C. Breuer of Buffalo returned from Lake Placid, Jan. 4.

Dr. S. S. Green of Buffalo, celebrated his Golden Wedding and 77th birthday, Jan. 6.

Dr. Harvey L. Brown has assumed charge of the Naval Recruiting Office at Buffalo, vice Dr. J. J. A. McMullen who has left for the Philippines.

Dr. Eugene E. Webster of Woodhull, has been elected chairman of the Steuben Co. Board of Supervisors.

Dr. H. J. Wynkoop of Bath has been appointed Physician to the Steuben Co. Jail.

Dr. Douglass Smith of Bath has been appointed Physician to the Steuben Co. Poor Farm.

Dr. George E. Ellis, Health Officer of Dunkirk, has had his salary raised from \$70 to \$80 a month.

Dr. Harry B. Lyon of Dunkirk has been appointed Secretary of the Board of Health.

Dr. John Parmenter of High Acres Farm, Geneva, visited in Buffalo late in January.

Dr. Charles F. Howard of Buffalo sustained a fracture of the left scapula, in an automobile collision, January 23.

Dr. Charles J. Mengis of Buffalo, has moved to 23 W. Oakwood Place.

Dr. Grace Ilahi-Baksh, M. D., University of Buffalo 1913, has been engaged by the Lutheran Church of the Redeemer as a medical missionary. She is now an interne in the German Deaconess Hospital, and will leave about August 1 to serve

in the Lutheran Hospital at Rajahmundry, in the Madras Presidency of India. Her parents are at present engaged in missionary service in their native country, India, her mother being also a physician.

OBITUARY

Readers are requested to report promptly the death of all physicians in Western New York, or former residents of this region, or graduates of any medical school in Western New York, and to notify the families of the deceased of our desire to publish adequate Obituary notices.

Dr. Allen E. Baker, N. Y. Homoeopathic 1888, died at his home in Auburn, Dec. 15, 1915, his age being stated at 43, which is not compatible with the date of his graduation.

Dr. Bentley S. Bourne, Niagara 1890, Health Physician of the village of Hamburg, N. Y., died at the residence of his brother, Charles L. Bourne, in Salisbury, Md., Dec. 25, 1915. He was born in Boston, N. Y., Sept. 16, 1866. He studied at the Central High School of Buffalo. He had practiced medicine in Hamburg for 25 years. He was a member of Fraternal Lodge, No. 625, F. & A. M., and of Hamburg Lodge of the I. O. O. F. The funeral was held in Hamburg, Dec. 28.

Dr. Elliott Calvin Smith, Buffalo 1882, died at his home in Corfu, Jan. 8, having returned from the Deaconess Hospital of Buffalo Dec. 28. He was born at Marilla May 30, 1859, living afterward at Akron, Oakfield and East Pembroke. He had practiced in Corfu since his graduation in medicine 34 years ago. He was a graduate of the Oakfield Seminary and of the University of Michigan. The funeral was held Jan. 11, under Masonic auspices.

Dr. John W. Fawdry of Corfu died Nov. 10. Only one other physician is listed in the State Directory for Corfu—Dr. Joel Bates, a graduate of the Eclectic College of Cincinnati, 1875.

Dr. Arthur L. Reeve, L. I. College Hospital 1896, of Brooklyn, killed himself under peculiar circumstances Jan. 5. His wife was awakened by a shot and found her husband dead in bed. He was subject to nightmare, and only two nights previously had wandered about the house searching, in a dream, for a burglar, being awakened by bumping into a door. He kept a revolver under his pillow. No reason for inten-

tional suicide existed. We mention this instance as a warning that weapons, kept for protection, may be a source of danger. Under ordinary conditions of civilized life, we believe that the general knowledge that one is not armed, is a protection in itself. A burglar or other assailant is not usually looking for trouble, and while he may shoot to anticipate being shot, he is not likely to do so if he knows that his victim is unarmed.

Dr. John Orlando Roe, P. & S. 1871, died at his home in Rochester Dec. 24, 1915, of anaemia. He was born in 1848 in Patchogue, L. I. He practiced in Rochester for about 40 years, devoting his attention to laryngology and specializing in plastic and cosmetic operations upon the nose and face. It may almost be said that he created this special department of laryngology in the broader sense. At least, he had done a large amount of original work in it and had devised special instruments for carrying out the principles of operation which he conceived. Besides his affiliation with the regular organizations of the profession and local societies, he was a past-president of the American Medical Assn., the American Laryngological Assn. and the Medical Society of the State of N. Y. He was also a fellow of the following: American Climatological Assn., American College of Surgeons, Pan-American Medical Congress, N. Y. Academy of Medicine, Congress of American Physicians, Medical Association of Central N. Y., British Medical Assn., French Society of Otology, Laryngology and Rhinology. He was largely instrumental in founding the Rochester Academy of Medicine and in establishing the various local societies in a permanent home with a medical library. He was both a practitioner and an investigator. His special interests did not detract from his interest and activity in professional organizations for the welfare of the whole profession. Eminently successful in every sense, he was keenly sympathetic with the humblest member of his profession and beloved as a man.

Dr. William Philip Spratling, P. & S. of Baltimore 1886, died suddenly at Wilska, Fla., Dec. 22, 1915. He was born in Chambers Co., Ala., in 1863, and received his education at Vanderbilt University and the Ala. State Polytechnic Institute. Shortly after graduating in medicine, he was admitted to the U. S. Marine Hospital Service (now U. S. Public Health Service), but resigned after a year and became Asst. Physician to the State Hospital for the Insane at Morristown, N. J., holding this position for five years. He then engaged in private practice in New York for about three years. From 1894 to 1908 he was Supt. of Craig Colony at Sonyea, N. Y., thus

being the pioneer in this form of control of epileptics. He was an ex-president of the National Assn. for the Study of Epilepsy.

Dr. Major S. Langs died at his home in Niagara Falls Jan. 20, aged 81. He was born in Langford, Ont., and came to the village of Suspension Bridge, now incorporated in the city of Niagara Falls, 47 years ago. He had held several offices, including that of trustee in the former village of Suspension Bridge, and was a prominent Mason. He had retired from practice and was a large property owner.

Dr. William Irving Thornton, Buffalo 1899, died at his home in Buffalo Jan. 16, aged 37, of pleurisy following pneumonia. He was born in Buffalo Jan. 20, 1879, the son of George H. and Delia Thornton, and the nephew of Dr. William Harvey Thornton. He graduated from the Buffalo Central High School in 1896. He served as interne in the Buffalo General Hospital for 21 months, and then for several months at the German Deaconess Hospital. Since 1901 he had been in practice in Buffalo. He was a member of the organization and local Academy of Medicine, Director of the Lafayette General Hospital and Attendant to the Buffalo Orphan Asylum. He was well and most favorably known both as a practitioner, for his interest in professional activities and as a man.

Dr. John P. Colegrove, Buffalo 1875, died at his home in Salamanca Jan. 14, aged 83. During his later years he had been an oil producer.

Dr. Lyman L. Beck (name given as Deck in State Directory), Michigan 1878, died at his home in Salamanca Jan. 3.

Dr. Isaac Ott, University of Penn., 1869, died at his home in Easton, Pa., Jan. 1, aged 68. He was the author of a work on Internal Secretions and on Human Physiology.

Dr. George Dallas Barrett, Dartmouth 1878, died at his home in Clyde, Dec. 23, of nephritis. He was Health Officer of the town of Galen.

Dr. Orson Gregory Dibble, N. Y. University 1869, died at his home in Pompey, N. Y., Nov. 24, aged 75. He had been Health Officer of the town for 15 years.

ABSTRACTS.

Have you ever felt that this department of the **BUFFALO MEDICAL JOURNAL** was lacking in abstracts of your specialty, or that such as were published lacked the expert judgement which you yourself could have exercised in selection and preparation? If not, you are more charitable than the editor has been to himself. If so, will you assist in abstracting from a few journals, and thus make this department more representative and more valuable? Incidentally, there are few forms of study more helpful to the worker than this.

Urologic Review. Chas. W. Bethune. Owing to the fact that the X-ray so frequently fails to demonstrate calculi in the ureter the use of the wax-tipped catheter is advocated. Gearaghty, (*Surg. Gyn. & Obs.* May, 1915) threads the cystoscope over the catheters which have been passed into the bladder in the same manner as passing a tunneled sound over a filiform. Harris (*Trans. Amer. Urolog. Assn.* 1914) guards the wax tipped catheter with a small rubber tube during its passage through the catheter channel of a Garceau type cystoscope.

The writer wishes to report a case in which the X-ray failed to demonstrate a calculus the size of a dried pea whose spicules scratched the varnish of a catheter. This stone passed naturally fifteen days later.

Habit-Forming Drugs in Proprietary Medicines. (*ibid*). The same 1108 proprietaries were considered, the statements made on the labels being accepted as true, doubtless because the risk of untrue statements is obviously fatal to the continuance of the business. None contained cocaine in "any quantity." Whether this expression is to be taken literally or in its colloquial meaning is not stated. 3 contained cannabis indica, 2 being corn remedies and one a cough mixture which would be toxic by virtue of its other constituents before the effect of the cannabis indica would become serious. None contained chloral. 28 external remedies contained opium or an alkaloid of opium. In 20, the content exceeded and in 5 it was less than the standard of 2 grains of opium or $\frac{1}{4}$ grain of morphine per ounce. 42 cough and diarrhoea mixtures and the like contained opiates but only in excess of the preceding standard and only one was in excess of the average opium content of 5 N. F. formulas for diarrhoea. 4 preparations were soothing syrups or powders for children. This study was made of preparations put on the market before the enactment of the Harrison law.

Hair Balls of the Stomach and Gastro-Intestinal Tract, Rudolph Matas, New Orleans, Surg. Gyn. & Obs., Nov. (Cuts by courtesy of editor). The first human case was that of Baudamant, Jour. de Med. de Paris, 1779. References are given to collected series and to recent cases, including the present, bringing the total to 73. The first removed by operation was by Schoenborn 1883. The total operated upon is 44. 38 cases were gastrotomies, in several, including the present case, the hair ball reaching into the duodenam. 4 were enterotomies, one or more hair balls being removed from the intestine, mainly the ilium. 2 cases combined gastrotomy and enterotomy at different sittings. Hair balls are mainly due to habitual biting



Fig. 1. Photograph of hair cast removed from the stomach of Miss M. B., by gastrostomy, on May 22, 1914, (Dr. Matas' case). Weight of dry specimen: 2 pounds $\frac{3}{4}$ ounce (about 967 grams); greatest length along greater curvature, 18 inches (46 cm.); along lesser curvature, 9 inches (23 cm.); greatest circumference at fundus, $10\frac{1}{4}$ inches (21 cm.); at terminal part, duodenal end, $6\frac{3}{4}$ inches (17 cm.). All measurements were taken from the dry specimen.

and swallowing of the patient's own hair, and hence, 43 of the 44 operated cases occurred in girls and young women, the youngest patient being 6 years old, the oldest, a man, 52. In a few cases, other fibrous matter such as bits of string, wool, etc., are also swallowed as a habit. In only two of the 44 cases was the hair of a foreign nature, and in only one it was

not swallowed on account of a neurosis. Both of these were occupational cases, one in a woman engaged in spinning cow's hair and who moistened it with her tongue, the other in a woman engaged in making bristle brushes, but the latter ate the bristles as a habit. (Note—We have frequently noted cases, mainly in women and children, in which the habit of biting the nails amounted to a neurosis, and included a perverted pleasure from actually swallowing the nails, even the



Fig. 2 Retouched radiograph of Miss M. B. (Dr. Matas' case). Hair cast in the stomach showing Holland's characteristic "J"-shaped shadow occupying the entire gastric area enclosed within the gas-distended loop of the transverse colon. No contrast meal. Exposure two seconds with screen. (From the X-ray laboratory of the Touro Infirmary, New Orleans.)

toe nails. We have never found reference to an accumulation thus caused. One of the nail-eaters who had heard of hair balls, thought that she had a tumor due to such an accumulation, but it proved to be merely the rectangular projection of the upper abdomen common in those with moderate anterior spinal curvature.)

In regard to pre-operative diagnosis, aside from sex, history

of trichophagy and frequent finding of hair in stools or in wash water from the stomach, the author emphasizes the value of X-ray examinations. The article concludes with an essay on the ancient beliefs regarding bezoars

“The characteristic behavior of the greater curvature on palpation, i.e., the greater curvature of the stomach becomes palpable when the stomach is contracted in active peristalsis and the bezoar is gripped firmly by the muscular contraction. It is not palpable when the stomach is relaxed and does not grip the foreign body.



Fig. 3 Radiograph of Dr. C. T. Holland's second case of hair ball in the stomach. "The first few mouthfuls of liquid barium meal remained held up in the cardiac end of the stomach and spread out as if forming a cap to something inside of the stomach." (From the Archives of the Roentgen Ray, March, 1914; plate 437. By kind permission of the publishers.)

The presence of fatty acid plates and needles in the contents of the fasting stomach, and the absence of starch and muscle-fibers. (These peculiar findings were not explained until the operation, when the hair ball was found to be infiltrated with fat which had resisted the digestive juices of the stomach and had been caught mechanically in the meshes, while the starchy

and albuminous substances were digested and discharged out of the stomach.)”

If these preliminary facts can be obtained the pre-operative diagnosis only needs confirmation by the physical and radiographic examination which should show (a) a shadow in the region of the stomach (epigastrium) of a characteristic J-shape (Holland, 5) fringed at its lower border by a crescent lining formed by the gas-distended transverse colon. This will (b) localize the gastric area and exclude the spleen and omen-



Fig. 4. Radiograph of Dr. C. T. Holland's second case of hair ball in the stomach. "Shortly after swallowing a breakfast cupful of the contrast meal the whole stomach was mapped out by what was obviously the barium lying between the walls of the stomach and the less opaque mass filling it." (From the Archives of the Roentgen Ray, March, 1914, plate 437. By permission of the publishers.)

tum, as these lie outside of the colonic loop. The liver can usually be distinguished from the stomach area by a faint darker outline. The further differentiation is accomplished by

4. Administration of a contrast meal of bismuth or barium in suspension, which will, at once, isolate the hair ball, either by surrounding it completely, leaving a paler and fainter area wherever the mixture has failed to penetrate the hair mass, or

in large hair balls, by the differentiating fluid finding its way between the stomach wall and the tumor. A distinct gastric contour is thus obtained within which the intragastric mass is defined by the gradual spreading of the contrast material on the outer surface of the hair ball. Or if this consists of two or more segments, as in Holland's (5) first case, by the penetration of the contrast fluid into the interspace which subdivides the mass (see Fig. 5).



Fig. 5. Dr. C. T. Holland's first case of hair ball in the stomach. The radiograph shows a hair cast formed of three parts. The upper and lower masses articulated with the center one by smooth-faceted surfaces. (From the Archives of the Roentgen Ray, July, 1913, plate 417. By permission of the publishers.)

5. Finally, while the progress of the bismuth or barium meal is being watched, the displacement of the intragastric mass can be observed as it is moved upward or sideways by manipulation. If the displacement of a foreign body within the stom-

ach can be made out clearly and unmistakably, and the mass is more or less molded on the contour of the stomach, it is almost impossible for the mass in the stomach to be anything else than a hair ball.

The real difficulty in the diagnosis of these cases lies in the usual inadvertence or unpreparedness of the operator for the possible presence of a hair ball.

Routine Radiologic Demonstration of Gall Stones. C. W. Lippman, San Francisco, Calif. *State Jour. of Med.*, Dec., 1915. "To treat the stomach in gall bladder disease is like pouring water into the fire alarm box to put out the fire."—Mayo. Unlike many authorities, Lippman holds that, while gall stones constitute a surgical disease, cholecystitis calls for medical treatment—a view with which we heartily concur, with allowance for exceptions in either direction. Neither physical examination nor symptomatology afford a satisfactory basis for discrimination. Direct demonstration of calculi on plates is possible in 40-60% of cases. (This probably means that about this percentage consist of calcium-bilirubin calculi of sufficient size to cast a distinct shadow. Ed.) Indirect evidence of value in diagnosing gall bladder disease consists in (1) hepato-fixation of stomach; (2) high fixation of hepatic flexure; (3) distortion of duodenal cap; (4) tender point outside of duodenal shadow. Conversely, a shadow in the region of the gall bladder may mean (1) right renal calculus; (2) calcareous deposit in tuberculous right kidney; (3) calcareous deposit in rib cartilage; (4) calcareous lymph node; (5) enterolith.

A Psychological Analysis of Stuttering. Walter B. Swift, A. B., S. B., M. D. *Jour. of Abnormal Psychology*, Boston, Oct.-Nov., 1915. The author's psychoanalysis reveals stuttering as some vague trouble in the personality. Psychologic Analysis shows stuttering is an absent or weak visualization at the time of speech. This new concept of stuttering as faulty visualization may be called Visual Centre Asthenia. This lack or weakness in visualization accounts for all the numerous phenomena of stuttering in severe, medium or mild cases. A new treatment is indicated.

Dislocation of First Cervical Vertebra. A. F. Tyler of Omaha in *Western Med. Rev.* Dec. (cuts by courtesy of author). Three cases have been seen in the last year, without death or even paralysis, but with stiff neck and downward tipping of the chin. The condition is that produced in hanging, but with escape of spinal cord from injury by odontoid process. Two cases were due to being thrown from wagons,

the third was ascribed by the patient to osteopathy—the movements consisting in partial rotation of the head with a forward thrust. This dislocation implies either rupture of the transverse ligament, fracture of odontoid, or slipping of the latter from the ligament. A few cases of reduction have been reported, but on account of the danger of instant death, none of these have consented to an attempt at reduction.



Fig. 2. Roentgenogram of patient with forward dislocation of first cervical vertebra. B—Body. S—Spinous process. Note the lower jaw thrown downward against the neck. Lateral view.

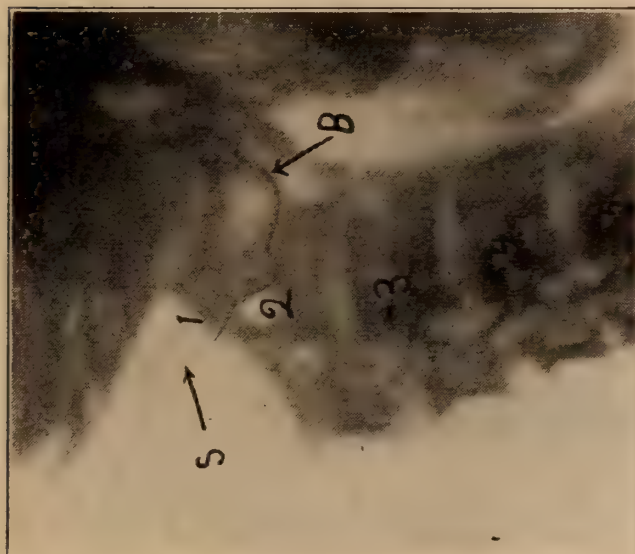


Fig. 1. Roentgenogram of patient who had forward dislocation of the first cervical vertebra. B—The body. S—The spinous process. Note the change in the relation of this vertebra to the others. Lateral view.

Epididymo-Orchitis in an Infant. A. G. Mitchell, Philadelphia, and N. J. Quinn, Atlantic City, *Arch of Ped.*, Nov. 1915. 132 cases of gonorrhoea in infants or young children were collected from the literature but only three cases of epididymitis. Reinhard, 1914, child delivered from mother with gonorrhoea, developing urethritis at age of two weeks, epididymitis 12 days later and dying 6 days later still. Rudski, 1905, found in the literature, reports of 2 cases of epididymitis, at ages of 15 months and 12 years, respectively. The authors report

a case, aged 3 months, admitted to hospital for regulation of feeding, the genitals appearing normal. 7 weeks later urethritis and epididymitis manifested themselves. Gram-negative diplococci, intra- and extra-cellular being found. The case recovered. No positive evidence as to source of infection was found, but 4 cases of urethritis followed in female infants in the same ward. (Note—The last casual statement seems to us to be the most important from the practical standpoint. Would it not be possible to introduce a routine which would absolutely prevent such an occurrence? Ed.)

Salvarsannatrium (No. 1206 A) has been developed at the suggestion of Ehrlich, Fabry and Fischer, Muench. Med. Woch., 1915, No. 18, page 612. This is freely soluble in water, free from hydraldite and is feebly alkaline in solution. It is dispensed in 0.4% salt solution in tubes containing 30, 45 and 60 centigrams, these being in single doses. The total volume of a single injection is 50-150 c. c. Intravenous administration is advised. The clinical phenomena resemble those of neosalvarsan, no severe symptoms having been noted in over 1,000 injections. The results, dosage, etc., also resemble those of neosalvarsan. This new preparation has a 20% arsenic content. Joint administration of mercury is advised. In this connection we have recently noted a suggestion by J. Alfred Cobb, Brit. Med. Jour., Dec. 11, to use a manometer cuff to bring out the veins of the elbow when they are small.

Double Tubal Pregnancy—Both Tubes Ruptured. D. H. Galloway, Boswell, N. W., reports such a case in Am. Med., Dec. Recovery, after operation.

Topics of Public Interest.

Fatal Second Attack of Typhoid. Our attention was called to this case by a press report and we wrote to Dr. Ellis, Health Officer of Dunkirk for verification. Dr. Walter H. Vosburg of Dunkirk has replied, giving the following details: The patient had typhoid at the age of five. The history on this point is apparently reliable. Three years ago, an attack of acute articular rheumatism left the patient with a pronounced mitral regurgitation and, a year ago, he was run over by an auto. Last month he developed indubitable typhoid, at first as an ambulant affection. Rose spots appeared on the sixth day and the Widal reaction was positive the same day. The patient died, the attack of typhoid being severe and the patient handicapped by the previous cardiac lesion and the injury. Age at death, 13 years. This case was, at the time, the only one of typhoid in Dunkirk.

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ORIGINAL ARTICLES

The right is reserved to decline papers not dealing with practical medical and surgical subjects, and such as might offend or fail to interest readers. Contributors are solely responsible for opinions, methods of expression and revision of proof.

The Retention of Nitrogenous Waste Products in the Blood

By CHARLES G. STOCKTON, M. D.,

Prof. of Medicine in the University of Buffalo,
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JOHN L. BUTSCH, M. D.,

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Early in the last century Prevost and Dumas were the first to demonstrate that in nephrectomized animals, the urea in the blood was increased. Their methods were crude and not much of a quantitative study could be made. The fact, however, was of great importance, and from that time until the present much attention has been paid to the study of the waste nitrogen in the circulating blood. Not until the middle of the last century were very accurate quantitative studies made. With these Picard was the first to be able to show that the blood urea varies with the proteid intake. Tileston and Comfort were able to show later that other factors caused a retention of the urea. Especially the severe anemias, intestinal obstruction, syphilis, lobar pneumonia and chronic plumbism, the coma of diabetes mellitus, and acute yellow atrophy of the liver.

In our studies of the chemistry of the nitrogenous wastes in the blood, the technic for urea was the urease method of Marshall, described in the Journal of Biological Chemistry. For uric acid and total non-proteid nitrogen we used the method of Folin and Denis described in the same journal. Along with these studies we have been making estimation upon the hydrogen ion concentration in the blood by the

method of Rowntree and Levin, Archives of Internal Medicine, and of the CO_2 tension in the alveolar air by the Fredrica method. We found the normal values for urea to be 12 to 14 mg. of urea nitrogen. Uric acid 1-2 mg., and total non-proteid nitrogen 23 to 25 mg., each estimated for 100 cc. of blood.

The amount of protein ingesta has a distinct bearing on the nitrogenous retention in the blood. We cite a case. A man, age 72, retired since the age of 45. At this age he had what he called a nervous breakdown, for which he took extensive treatment, both in this country and abroad. During the years from the age of 45 to the present time he has given most careful attention to his absorptive and eliminative processes. On a most carefully selected diet, well directed exercises and baths, properly alkalized with suitable waters, this man at the age of 72 has a systolic blood pressure of 120-diastolic 90, with a remarkable urine for a man of his age. On account of the illness of his wife and the war he did not go abroad, but presented himself to us for study. His blood was a surprise; having a uric acid content of 1.8 mg. and a urea of 7.8 mg., total non-proteid nitrogen of 19.2, chlorids 68 mg., blood sugar .10, hydrogen ion concentration of his blood 7.8. This man when he presented himself was taking about 40 gms. of proteid, 160 of fat, 100 of carbohydrate, and about 2000 calories. For study he was placed on a considerably higher dietary, consisting of proteid 90, fat 190, carbohydrate 250, and about 3500 calories. On this diet his blood showed the following: uric acid 2.4, urea 14.2, total non-proteid nitrogen 29.6. His blood sugar remained the same, his hydrogen ion concentration rose slightly. His urinary acidity, which was 25 acidity per cent. at the beginning of his study, quickly rose to 85 acidity per cent, after being on the increased diet for three days. His urinary indican, which was 13 mg. for 24 hours at the beginning, quickly rose to 42 mg. for 24 hours. This study shows, as we have noticed in numerous other cases, that the nitrogenous wastes are considerably modified by diet. Not only are the nitrogenous wastes piled up in the blood serum, but many other metabolic disturbances were noticed. His urinary ammonia rose, as did the hydrogen ion concentration. Before the increased dietary was given his nitrogen balance was only slightly positive. On the increased diet he showed a large amount of nitrogen retention. This case shows an increasing retention of the waste nitrogen with increased feeding, but we can reverse the conditions and show records of cases which came to the hospital with markedly increased retention which, upon proper dietary, fell promptly to within normal limits. Others it required from four to six weeks to reduce their nitrogen percentage in the blood. A few cases fail to respond to treatment at all. It is especially those who

have neglected themselves too long. So long that their urea retention was above 60 mg. When the urea nitrogen is much above 60 mg. the prognosis begins to be grave. It is as necessary for these patients to remain on a low proteid diet after they have been relieved of their retention as it is for a diabetic to remain on a low carbohydrate diet after he has been relieved of his hyperglycaemia.

The causes of nitrogen waste retention are many. Most often it is due to some form of nephritis, but many other pathological conditions may increase it. We have it in severe anemias, leucaemias, acute infections, especially in some stages of pneumonia. We have found it in what was seemingly a pure cardiac decomposition. In pyloric stenosis, intestinal stenosis, esophageal stenosis, and in cases which have persistent vomiting from any cause we find an increase in the nitrogen wastes in the blood. Some of these pathological conditions have associated with them increased catabolism, which if accompanied by much intermediate acid formation gives rise to slight acidosis, which in turn decreases renal function, which may be demonstrated if not morphologically at least physiologically. In this way both factors are at play. Increased total non-proteid nitrogen formation and a decrease in its elimination.

Most cases of acute nephritis show retention. If one encounters high values in acute kidney lesions the chances for recovery are greater than if one encounters it in the chronic cases. Values as high as 106 mg. urea nitrogen have been found which promptly fell as the treatment of the nephritis progressed. This is especially true of young patients.

Mild cases of nephritis usually show a retention of between 30 and 40 mg. of urea nitrogen. It is in these cases that prophylaxis should begin. When a patient shows these values, he should be under careful dietetic direction, together with regular exercise and elimination.

Advanced cases of chronic nephritis show values from 60 to 140 mg. of urea nitrogen. Cases showing values above 60 mg. must be given the most careful treatment. When the retention of urea nitrogen reaches 90 to 100 mg. the prognosis is grave. Exidus occurs usually in less than a month. We have, however, held such patients for three months under the most rigorous "regime." Occasionally we find a severe chronic nephritis with a retention of 90 to 100 mg., which recedes to a mild type with intensive treatment. We have such cases now who are living in comfort so far as symptoms go. They are symptomatically free from disease so long as they remain within the bounds of their prescribed restrictions. That is: low diet, alkalies, graded exercise, both mental and physical. Several such cases who, three years ago, gave every sign of a

rapid approaching end, are still well and happy. Not, however, very active nor gormandizers.

In prostatic hypertrophy we may or may not have a retention, depending upon how much the kidney is involved. If there is a retention of urine in the bladder there is usually a nitrogen retention in the blood, which will subside if the kidneys are not involved. It is in these cases that the greatest discrepancies between the phenolsulphonphthalein tests and the retention tests occur. Patients having a phthalein test as low as 7% in 2 hours, have failed to show a retention, which were operated in spite of their low phthalein and made uneventful recoveries. The cases of prostatic hypertrophy in our series which have shown a high retention of nitrogen products in the blood, have been thoroughly eliminated before operation, and we have yet to see a case of postoperative acidosis following this condition if the retention was reduced and kept down by proper treatment both before and after the operation.

In a number of our cardi-nephritic cases we have had opportunities at the same time we studied the blood, to study the pleural and abdominal fluids. We find as did other observers, that they agree closely with the blood in their content of nitrogenous wastes. The spinal fluid was studied in cases where a spinal puncture was done for diagnostic purposes. It too, agrees closely with the blood. We found, however, that in the majority of our cases which gave a positive Wasserman reaction, there was always more or less of a retention.

In hypopituitaryism we found that the values were lower than normal, the same was true of hypothyroidism, but the reverse was true with hyperthyroidism. We studied the effect of a right lobectomy on one of our cases. The case was a young married woman age 25 years, showed a retention of 35 mg. before operation. Just after her operation the value went up to 42 mg. Two months after her operation it was again down to normal.

The Incest Epic of the Freudians. Geo. Mitchell Parker of N. Y., Med. Rec. Jan. 1, 1916, cites parents "who with a contented spirit shared their knowledge of cancer and Montessori, of salvarsan and Gary schools . . . alcohol and twi-light sleep." The very natural and frank preference of their 4-year old son for the mother, is interpreted as incestuous. The article is rather long but well illustrates the possible disadvantages of lay instruction in medical matters, and especially the tendency to interpret childish impulses in sexual terms. Allusion may also be made here, to several editorial articles, condemning the playing of female parts by college students as a manifestation of sexual depravity, and as liable to cause homosexual stimulation in the audience.

BUFFALO MEDICAL JOURNAL

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Military Medical Officers

Aside from the provision of materials of war, now complicated and costly, the great problem of military preparedness is correlation. It does not matter much whether the manual of arms and evolutions are perfectly performed or even whether the individual soldier shoots accurately or not—except in the case of artillery for which regular training and more particularly, applied science are necessary. No one detail of preparedness so far as correlation is concerned, is of great difficulty but each is tedious and all must be worked out with reference to mutual harmony. A considerable period of time is necessary to convert the abundance of patriotic and intelligent men who constitute our militia in the proper sense, into an adequate defensive force.

We call attention to one detail in which the medical profession is especially interested. A vast amount of the work of the medical staff is medical in the restricted sense, involving physical examination, advice as to hygiene and sanitation not in any way approaching the technical details of physical training for strictly military purposes nor the formulation of rules for camp and trench life, and there still remains a very large amount of purely medical practice. A great many physicians are willing and anxious to perform such services in case of need and to prepare for an emergency by national guard or auxiliary service in peace but they are neither surgeons, bacteriologists nor sanitary experts. They have no time to prepare for an examination which will enroll them as surgeon in theory nor do they wish, even nominally, to pose as sur-

geons, bacteriologists or sanitary experts, much less to do actual damage by attempting to discharge such duties under orders based on the assumption that they are anything else than medical practitioners. This fear may be imaginary. Our predecessor, the late Lt. Col. W. W. Potter, M. D., in describing the surgical service of the Civil War, emphasized the fact that details for operative work were based on actual proficiency, without regard to rank. But, from the opposite standpoint, it may not be a groundless fear that personal ambition may lead to the seeking of surgical experience by men not properly qualified.

Be this as it may, the fact remains that, in peace, the work of the army surgeon is mainly non-surgical, and that in war, there will be, on the one hand, a large demand for distinctly surgical work and, on the other, for an approximately equal amount of distinctly medical work. Under present conditions, it is rarely that the surgeon is a good internist or the internist a good operator. This is partly due to the fact that the two branches of the medical art call forth quite different forms of ability, even more due to the fact that very few men have the time and strength to perfect themselves in both.

The time is ripe to recognize that these facts present definite conditions which must be met to insure preparedness in the military sense, even with regard solely for military efficiency and not for humanity or the after-effects of war. In Europe, practically all practitioners are ipso facto, members of the medical corps of the army, with training in time of peace and billeted provisionally, for any demand that may come upon their country, according to their individual abilities. In this country, it is probable that voluntary service in all branches of the military organization, will suffice but there should be devised a practical plan for providing both surgeons and physicians and such scientific and practical specialists as are required, with proper allotment of duties and with equal rank, according to duration and value of services, just as in the different arms of the fighting service. And, the time to provide for this adjustment to modern conditions and possible future needs, is now.

Prognosis as to Duration of Life.

Given an obviously fatal case, we are often asked to prophecy as to how long life will continue. This demand is made not only by the laity but by medical men among themselves. The writer has just had to admit his inability to make such a prophecy, even within approximate limits, in a consultation. In lay fiction, the doctor is not thus ignorant. His prophecies are definite and, unless the author chooses to hold

him up to scorn, "with a purpose," accurately fulfilled. Often the doctor states that the crisis will occur at a certain hour, and that the fate of the patient will then be determined. In our own experience, we have found diseases with crises to be rather infrequent. Even when crisis is typic of the disease, it often fails to manifest itself or does so in an atypic way. Often, too, quite a typic crisis is not at all critical so far as life and death are concerned; that is to say, the patient is in no special danger at the time of the crisis and, on the other hand, is not necessarily relieved of danger by its passage. Whenever asked for a definite prophecy of duration of life, we have been accustomed to cite an early experience as the most accurate fulfillment of this demand which we have ever accomplished. As an interne, we expressed a very positive opinion that a certain patient would die during the night. He survived some days, but the man in the next bed did die that night.

We invite discussion of this problem, which is not without its practical importance, and which is really an issue as indicating professional judgment and on account of sentimental reasons. When, for instance, is a near relative to be summoned who can spare but a short time? In the case of two dangerously sick persons in the same family, is it feasible to await the second death so as to hold a double funeral? Medico-legal problems, particularly as to inheritance, also hang upon the exact time of death. From a number of points of view, it is highly desirable to be able to foretell quite accurately the date of death of a fatal case. Have we correctly stated a position of agnosticism, or have we merely confessed a personal lack of skill and judgment?

Jack Straws.

We need not describe this good old fashioned game. We simply want to emphasize that it ought to be part of the armamentarium of every child as a training of muscular co-ordination and the muscular sense. It should also be used in cases in which, from paralysis or other cause, it is necessary to retrain these faculties. Incidentally, it might prove an alternative for diversion of convalescents, and might possibly distract the attention in such a way as to ameliorate some of the manifestations of mental disease.

Are We Saving at the Spigot and Wasting at the Bung?

The great reduction in medical colleges, the disappearance of all of a sectarian nature except a few high grade homoeopathic institutions, the diminution in medical students and

graduates, the higher quality of preliminary and professional education are accomplished facts. But, Christian Science, osteopathy, optometry, cheiropractic and various other cults are widely practiced, are seeking and gradually gaining an official status. Some are pessimistic enough to contend that nothing has really been gained except in mutual esteem within the medical profession, and that the same demand for easy, cheap and low grade medical degrees, with special brands or without them, exists today as heretofore, and that it is being satisfied in markets no longer under the nominal control of the medical profession. We do not entirely agree with this pessimism. It is a considerable advantage to have oleomargarine sold under its own name and not as butter, even if just as much is marketed, and it is a distinct gain that low grade and imitation Medical Doctorates must be sold under another name. But let us not be blind to the fact that the underworld of medicine still exists and thrives in spite of segregation.

National Guard or Continental Army.

Modesty forbids more than brief allusion to the resignation of Secretary-of-War Garrison, after our declaration in the previous issue in favor of the development of the National Guard. But, seriously, is not the development of a national policy by the free expression of opinion throughout the country, when no one individual or association of individuals can claim proprietorship in an idea or influence to carry it into execution, the more democratic way, and the one most likely to secure ultimately, the wisest decision? Note that the editorial referred to was not a single personal opinion. It was virtually a symposium, representing general patriotism, the aspiration of medical men untrained in military service to secure efficiency for such service, if necessary, and the experience of both medical, staff and line officers of long service in the National Guard. By all of these factors, personal judgment was subordinated to the desire to secure the best final decision. The issue has been simplified by what appears to be the decision that the main defense of our country, in the numeric sense, must rest with the National Guard. This organization must be increased, perfected, and nationalized. Probably through its instrumentality, in some way, the partial instruction of the ultimate militia of the country must be brought about, in order to provide sufficient material, not quite in the raw state, for an emergent increase of military forces. We are especially interested in the problem of such instruction for a potential military staff of adequate numbers. We invite further discussion of this subject from our readers.

BOOK REVIEWS

Books mentioned may be inspected at and ordered through this office. So far as possible, books received in any month will be reviewed in the issue of the second month following.

Medical Clinics of Chicago, Jan. 1916. Published bi-monthly by W. B. Saunders Co., Philadelphia, \$8.00 per annum.

This publication includes a number of interesting clinical lectures, including such subjects as cerebro-spinal meningitis, infantile grip, hepatic cancer, trichinosis. It occupies a position midway between the typic high class journal and the text book.

A Manual of Hygiene and Sanitation. By Seneca Egbert, M. D. Professor of Hygiene and Dean of the Medico-Chirurgical College, Philadelphia. New (6th) edition, thoroughly revised. 12mo, 525 pages, with 141 figures and 5 plates. Cloth \$2.25 net. Lea & Febiger, Philadelphia and New York, 1916.

It will be noted that this work includes both sanitation and personal hygiene. Ventilation is especially well presented for a work of the size. The charts showing the influence of filtration on typhoid in Philadelphia are particularly interesting. Some useful formulae are given for calculation of vital statistics. In general the work covers the subject quite thoroughly, though obviously, in a somewhat condensed form.

A Treatise on the Principles and Practice of Medicine. By Arthur R. Edwards, M. D., Professor of the Principles and Practice of Medicine and Clinical Medicine and Dean of the Northwestern University Medical School, Chicago. New (3d) edition, thoroughly revised. Octavo, 1022 pages, with 80 engravings and 23 full-page plates in colors and monochrome. Cloth, \$6.00 net. Lea & Febiger, Philadelphia and New York, 1916.

While it is obvious that conspicuously novel points cannot be introduced into a work on practice without detracting from its usefulness, and while it can scarcely be claimed that there is any great lack of such works, this author has excelled ordinary standards in several ways. For instance, paratyphoid, tetany, various conditions of the saliva, certain entozoa and a number of other conditions, often omitted and usually merely touched on, are given a fair amount of space. The colored plates, 23 in number, are extremely useful, and while the book

does not pretend to the completeness of specialized works in haematology, neurology, etc., one could really handle a case of blood disease or malaria pretty satisfactorily by reference to this book, whereas most works on practice deal with such diagnostic problems only far enough to be an aggravation. Credit is given Dr. I. P. Lyon for part of the work on the blood. We can scarcely agree with the statement that even small haematemeses are characteristically acid, or that the symptomatology of achylia gastrica bears any resemblance to that of hyperchlorhydria, except as any gastric case may present atypic or misleading symptoms, but we agree most heartily with the conservative statements as to the value of surgery in gastric ulcers.

The Clinics of John B. Murphy at the Mercy Hospital, Chicago, December, 1915.

In the discussion following two operations for undescended testicle, Dr. Murphy refers to the paper of Armstrong of Wellington College (in Med. Press and Circ., Aug. 4, 1915), in which he reports remarkable results from the administration of thyroid extract in cases of undescended testicle, and quotes him as follows: "During the last four years out of 600 boys of the age of 13 and 14, 4 were found with complete absence of both testicles from the scrotum. In each case the penis was very small and there was no appearance of hair on the pubis. Two of them had Levi de Rothschild's sign of thyroid inadequacy—i.e. rarefaction of the outer third of the eyebrows. One was of the Mongolian type.

"To each of them thyroid extract in $1\frac{1}{2}$ gr. doses was given twice daily over a considerable period, with satisfactory results. In a few weeks the testicles could be felt in the inguinal canal, and in 3 of the 4 cases the complete descent into the scrotum was established in about three months. In the fourth case one testicle is now completely and the other almost descended."

Until this is established, all cases of undescended testicle are to be operated upon except, says Dr. Murphy, in those cases in which the testicle is situated within the abdomen. The organ may be fixed in the scrotum, removed from the body or returned to the abdomen.

The chance of an undescended testicle becoming sarcomatous is very great. Even in those not subject to trauma, as for instance those within the abdominal cavity. In fact, if one testicle is removed for sarcomatous change the remaining one has frequently been known to be sarcomatous also. Similar observations are made in other paired organs, as kidneys and ovary. Malignancy may be explained by Cohnheim's

theory, or better perhaps by being due to the influence of some biochemical agent.

This number deals with other congenital deformities as cervical ribs, thyroglossal duct, congenital nasal deformity, etc., and a large variety of other lesions besides the usual bone and joint cases.—C. W. H.

Surgical Operations with Local Anesthesia. Second edition by Arthur E. Hertzler, A. M., M. D., Ph. D., F. A. C. S. 327 pages, 173 illustrations. Cloth bound, price \$3.00. Surgery Publishing Company, New York.

The rapid sale of the first edition covering minor surgery and the demand for a more complete work upon the subject covering both major and minor surgical work, has induced Dr. Hertzler to present this second volume, which for completeness as to detail and price we believe places it in a class by itself among those text books upon this most interesting and growing subject. Dr. Hertzler's vast surgical experience and his work with Local Anesthesia particularly fits him as an authority upon this subject, and thus the second edition of his book places within the hands of the doctor a manual which for completeness and comprehensiveness, particularly recommends it. From a review of this book Dr. Hertzler seems to have overlooked no point of major or minor importance. The large number of illustrations clearly places up to the eye of the reader the text of the book and both the general practitioner and surgeon will appreciate this work as a reliable guide in their operation work under local anesthesia.

Painless Child Birth, Eutocia and Nitrous Oxid-Oxygen Analgesia. Carl Henry Davis, Chicago. Published by Forbes & Co., Chicago. 134 pages, \$1.00.

This book reviews briefly the history of the attempt at producing painless labor and, comparing different methods, gives the preference to the anaesthetic noted in the title. A table shows the general mortality of labor to be $1\frac{1}{2}\%$, reduced to about $\frac{1}{4}\%$ under favorable conditions.

Text Book of Nervous Diseases, in 30 Lectures. Robert Bing, Basel, translated by Charles L. Allen, M. D., Los Angeles; Rebman Co., 141-5 W. 36, N. Y. 111 illustrations, 481 pages, \$5.00.

The work is logically divided into lectures on the peripheral nerves, dyskenesias, progressive muscular atrophies, cord diseases including hereditary ataxias, syphilogenic diseases, ar-

terio-sclerosis of the nerve centers, acute infectious diseases affecting the same, diseases of the cerebrum and cerebellum, malformation, etc., dysglandular symptom-complexes, diseases of the sympathetic system including angio- and tropho-neuroses, epilepsy, psychoneuroses, migraine. An index of authors and a general index conclude the work. The work is well illustrated but not over illustrated. The author has presented the subject clearly and with a thorough understanding, and the translator, with the occasional addition of a foot-note regarding new matter, has contented himself with putting the original words of the author into good English.

Transactions of the Tri-State Medical Association of the Carolinas and Virginia. 17th Annual Session at Charleston, Feb. 17 and 18, 1915. Publication Committee: J. Howell Way, Waynesville, N. C., A. E. Baker, Charleston, S. C., C. M. Edwards, Richmond, Va.

The President, Dr. E. C. Register, editor of the Charlotte Medical Journal, in his address, dwells on the value of medical organizations and particularly emphasizes the need of open-mindedness in investigating any suggestion which may by any possibility lead to valuable results. The work of individuals, however valuable, dies with them unless communicated to proper scientific bodies and thus preserved. The scientific and clinical papers cover a variety of subjects and, in accordance with our precedent, we make no attempt to review them.

Medical Alumni Catalogue, University of Buffalo. Published by the Alumni Association.

2874 names are listed, 2737 graduates of the University of Buffalo, 137 of Niagara University prior to its amalgamation in 1898. 847 were known to be dead, 207 could not be traced, leaving a living membership of 1820. The credit of compilation, which was done by order of the Association, under the direction of its Executive Committee, is due to Miss Emma L. Chappell, College Secretary 1893-1913. The officers of the general and local branches, constitution and by-laws are included in the book. The work is divided into three parts: lists of classes, 1847-1915; alphabetic list of all alumni referring to the first part, except for the class of 1915; geographic list of living alumni by places of residence, except for the class of 1915. There are 723 physicians listed in the State Directory for Buffalo; 533 of the living alumni are listed for the same city. 365 are out of N. Y. State, many in foreign countries. Almost all of the alumni who could not be traced

are graduates of classes before 1870 and the great majority are undoubtedly dead.

We trust that every alumnus will carefully examine the record and get into touch with his undergraduate acquaintances. It is also desirable that exact data should be filed regarding alumni who have not been traced or with regard to whom errors have been made. Three deaths, at least, have occurred since the compilation of the list in October.

The Practical Medicine Series, 1915. Chas. L. Mix, A. M., M. D., general editor, Year Book Publishers, 227 S. LaSalle St., Chicago. \$10 for the annual series of 10 volumes.

Vol 8, *Materia Medica and Therapeutics, Preventive Medicine, Climatology*, Geo. F. Butler, Ph. G., A. M., M. D., Henry B. Favill, A. B., M. D., Norman Bridge, A. M., M. D., editors. 378 pages, \$1.35 separately.

Vol. 9, *Skin and Venereal Diseases*, Oliver S. Ormsby, M. D., and Jas. Herbert Mitchell, M. D., editors; *Miscellaneous Topics*, Harold N. Moyer, editor. 240 pages, \$1.35 separately.

Vol. 10, *Nervous and Mental Diseases*, Hugh T. Patrick, M. D., and Peter Bassoe, M. D., editors. 240 pages, \$1.35 separately.

This series is the best practical review of current medical literature extant. Experience derived from the present war is noted in each of the above.

A Text Book of Physiology: for Medical Students and Physicians. By William H. Howell, Ph. D., M. D., Professor of Physiology, Johns Hopkins University, Baltimore. Sixth edition thoroughly revised. Octavo of 1043 pages, 305 illustrations. Philadelphia and London: W. B. Saunders Company, 1915. Cloth, \$4.00 net; half morocco, \$5.50 net.

It is scarcely necessary to state that a work that has become standard and has reached its sixth edition, is a good text book, in the field chosen. What impresses us most favorably is that this work is like certain employees who do little things not literally in the line of their immediate duty and yet without pre-empting the function of others. For example, the discussion of nerve regeneration, of the special senses, particularly the eye, of the nervous centers, of the blood, of blood pressure, of the emunctories, of caloric balance, of the chemistry of foods, etc, includes, quite unobtrusively hints of great value from extremely practical standpoints. The statement that

rennin does not do anything but coagulate milk and the unbiased but critical statement of the arguments for and against specificity of such a ferment, afford a feeling of satisfaction after a long experience of putting one's finger on a fact and finding that it is not there. The book is equally valuable negatively. For example, our attention has lately been concentrated on blood.

It is practically valuable, although disappointing, to find that some of the elaborate genealogies of leucocytes contained in supposedly practical works in this line of diagnosis, are no better supported than some human genealogies. These items will illustrate why the work will prove of service to the practicing physician as well as to the student.

Practical Cystoscopy and the Diagnosis of Surgical Diseases of the Kidneys and Urinary Bladder. By Paul M. Pilcher, M. D., Consulting Surgeon to the Eastern Long Island Hospital. Second edition thoroughly revised and enlarged. Octavo of 504 pages, with 299 illustrations, 29 in colors. Philadelphia and London: W. B. Saunders Company, 1915. Cloth, \$6.00 net; half morocco \$7.50.

The author has comprehended his subject in a broad spirit. His book is not merely a description of a special technic, but enters into symptomatology from endoscopic inspection and into pathology as is required for proper conception of underlying disease. He also discusses ureteral catheterization. The final chapters on the therapeutic use of the cystoscope and the use of the high frequency current also illustrate the same thoroughness. For these reasons, the book is valuable not only to the man who expects personally to use the cystoscope and allied instruments, but to the practitioner who wishes to understand the methods of diagnosis and treatment available.

Post-Mortem Examinations. By William S. Wadsworth, M. D., Coroner's Physician of Philadelphia. Octavo volume of 598 pages with 304 illustrations. Philadelphia and London: W. B. Saunders Company, 1915. Cloth, \$6.00 net; half-Morocco \$7.50.

The introduction and chapter on phenomena of death contain some particularly good suggestions, many of which are usually lacking in works of this scope, and some of which are novel. The discussion of mortuaries and instruments, and of general technic is also noteworthy. We need not dwell on the routine consideration of dissection of various parts and organs composing the body of the book. Medico-legal post mortems, causes of death, coroners' examinations, medical evidence, ex-

humation, embalming, toxicology, violence, especially shot wounds, photography, electricity, mensuration, repair of body, bibliography of useful books, are topics of unusual interest and including many details often omitted. The following table is so interesting and contains information so difficult to obtain that we quote it in full:

Organ	Weight	Length	Breadth (or calibre)	Thick- ness	Specific gravity	Pro- portion to body
Brain	1000-1700	0.16*	0.13*	0.12*	1040	2%
Cord	30*	0.50	0.01	0.008*		.5
Glands				all glands about		
Mammary	150-900	0.1*	0.12*	0.05*	1050	
Parotid	20-30	....	....	....	1050	
Prostate	15-35	0.25*	0.35*	0.02		
Sublingual	2-4					
Submaxillary	7-10					
Suprarenal	5-10	0.05‡	0.03‡	0.005‡		
Thymus	3-5					
Thyroid	25-40	0.03*	0.06*			
Heart	100-360	0.1*	0.09‡	0.035‡	1050	0.5%
Aorta	30-50	....	0.017-0.03	0.0015*	1070	
Intestines						
Duodenum		0.25	0.02			
Small	630-700	6-8			1040‡	
Colon	460-500	1.4-1.7	0.6‡			
Liver	1200-2000	0.2-0.35	15.‡	0.14‡	1050*	2.5%*
Kidneys	200-350	0.1-0.13	0.05-0.06	0.03-0.04	1050	0.45%
Lungs	700-1300	0.26‡	0.16‡	0.14‡		
Ovary	5-10	0.03*	0.015*	0.012*		
Pancreas	30-150	0.17*	0.04*	0.03*	1045	
Spleen	100-200	0.1*	0.08*	0.03*	1035*	0.25%
Stomach	125-175	0.25	0.1-0.14	0.006		
Esophagus	25-50	0.2-0.3	0.04*	0.008*		
Testicle	10-30	0.04*	0.025*	0.02‡	1040	
Uterus						
Virgin	30-50	0.06*	0.035*	0.02*	1050	
Parous	50-100	0.07*	0.40*	0.025*		
Bladder	30-60					

* Plus; ‡ Plus-Minus.

Bone-Graft Surgery. By Fred H. Albee, M. D., F. A. C. S., Professor of Orthopedic Surgery at the New York Post-Graduate Medical School and the University of Vermont. Octavo volume of 417 pages with 332 illustrations, 3 of them in colors. Philadelphia and London: W. B. Saunders Company, 1915. Cloth \$6.00 net; half morocco \$7.50 net.

This is one of the most highly specialized and individualized branches of surgery. Considerable space is devoted to the physiologic and pathologic principles upon which the art is dependent and it may surprise many to know that 10 general and 18 special uses of the graft are enumerated. Beside Pott's and other spinal disease, the method is applicable to the sacro-iliac joint, the tarsus, as a substitute for all sorts of metallic plates, screws and other retention devices for ordinary fractures, to produce permanent closure of foramin after nerve resection, to prevent slipping of the patella, to replace the head and neck of the femur and to reinforce a shallow receptaculum, to repair nasal deformities, those of the lower jaw, and to fill in cranial apertures and others. The only contraindications are markedly septic field or excessive scar tissue as an environment, though it is usually advisable to cure syphilis before attempting the graft. The electric motor outfit is described and the bulk of the work is a detailed consideration of the various problems involved in different bones and under different pathologic conditions.

SOCIETY MEETINGS

Brief reports and announcements of meetings of societies of Western New York, and those of general scope, are requested from Secretaries. Copy should be on hand the fifteenth of the month. Full transactions will be published at cost of composition.

DOCTOR: Is your Society properly represented here? If not, please bring our standing announcement to the attention of the members.

Presidents, Secretaries and Treasurers of County Societies.

Allegany, C. W. O'Donnell, Andover; C. R. Bowen, Almond; C. R. Bowen, Almond.

Brooms, H. C. Sears, Binghamton; H. DeW. Watson, Binghamton; F. M. Dyer, Binghamton.

Cattaraugus, M. E. Fisher, Delevan; H. H. Ashley, Machias; H. H. Ashley, Machias.

Cayuga, J. M. Jenkins, Auburn; G. H. Beers, Auburn; F. A. Lewis, Auburn.

Chautauqua, A. W. Dods, Fredonia; J. W. Morris, Jamestown; G. F. Smith, Falconer.

Chemung, R. H. V. Dam, Elmira; F. M. Flood, Elmira; H. W. Fudge, Elmira.

Cheango, A. R. Morse, Oxford; P. B. Brooks, Norwich; J. B. Drake, Norwich.

Erie. F. W. Barrows, Buffalo; F. C. Gram, Buffalo; A. T. Lytle, Buffalo.

Genesee. E. F. Hagedorn, Gloversville; H. H. Oaksford, Gloversville; J. D. Vedder, Johnstown.

Herkimer. J. W. Graves, Herkimer; A. W. Suiter, Herkimer; G. W. Graves, Herkimer.

Jefferson. J. D. Olin, Watertown; C. E. Pierce, Watertown; P. E. Thornhill, Watertown.

Livingston. H. B. Marvin, Lima; G. K. Collier, Sonyea; G. K. Collier, Sonyea.

Madison. * * * * * ; G. W. Miles, Oneida; N. O. Brooks, Oneida.

Monroe. F. W. Seymour, Rochester; C. W. Hennington, Rochester; C. C. Sutter, Rochester.

Niagara. H. A. Wilmot, Middleport; L. R. Hurlbut, Lockport; W. A. Scott, Niagara Falls.

Oneida. W. B. Roemer, Utica; D. E. Pugh, Utica; T. W. Clarke, Utica.

Onondaga. G. M. Price, Syracuse; E. V. Sweet, Syracuse; R. J. Stoup, Syracuse.

Ontario. B. T. McDowell, Bristol Center; D. A. Eiseline, Shortsville; D. A. Eiseline, Shortsville.

Orleans. J. Dugan, Albion; G. F. Rogan, Medina; G. F. Rogan, Medina.

Seneca. A. Letellier, Seneca Falls; F. W. Lester, Seneca Falls; F. W. Lester, Seneca Falls.

Steuben. L. M. Kysor, Hornell; B. R. Wakeman, Hornell; B. R. Wakeman, Hornell.

Sullivan. A. B. Sullivan, Liberty; C. S. Payne, Liberty; C. S. Payne, Liberty.

Tompkins. W. G. Fish, Ithaca; C. F. Denman, Ithaca; J. W. Judd, Ithaca.

Wayne. E. A. Nevin, Newark; R. Sheldon, Lyons; R. Sheldon, Lyons.

Wyoming. J. R. Brownell, Perry; J. F. Crawford, Warsaw; J. F. Crawford, Warsaw.

Yates. G. H. Leader, Penn Yan; G. E. Walker, Dresden; E. M. Scherer, Penn Yan.

Medical Association of Central New York.

Minutes of 47th Annual Meeting continued from last issue.

The PRESIDENT: Dr. Rochester.

DR. ROCHESTER: Mr. Chairman, I came in so late that I am really not able to discuss the paper.

The PRESIDENT: Dr. Coon, will you have something to say on the X-Ray?

DR. COON: I do not want to let the opportunity go to congratulate Dr. Palmer upon the X-Rays he has shown, and also upon the question of diagnosis. There is so much that can be done by the X-Ray man. Those of us who have had experience in making lantern slides from X-Ray negatives appreciate the difficulty in bringing out the prime features, the prime detail which we wish to show, and on which so much depends for a diagnosis. By the best processes it cannot all be placed on the slides, and for that reason I want to congratulate Dr. Palmer upon the excellence of the slides as shown here. A great many of them were very, very clear. The question of the diagnosis of the various lesions of the metastyle, the heart as well as the stomach and digestive tract, is yet an open one in a great many respects, a great many things have not been decided, but all of us must appreciate the value of the X-Ray in the study of practically all of these cases. A tuberculous lesion of the lung can be shown very early; some even claim it can be shown before the ordinary expert diagnostician can do it by percussion, palpation and other means of study. A lot can be done and is done with the study of heart lesions. Of course while it probably will never be possible to show the action of the heart valves, yet any serious abnormality of that heart can be shown. Certainly this is true of the stomach and the organs below the diaphragm, a lot can be shown, and I want to thank Dr. Palmer for the excellent exposition he has given.

DR. ALLEN JONES, Rochester: Mr. President, these papers by the doctors from Toronto, and Dr. Palmer's paper, are, as has been said, very valuable. I am reminded of the vast changes which have taken place in clinical medicine in the last few years. A good many of us here remember well when we were dependent for diagnosis upon our physical methods and upon symptomatology, and while those are very valuable today, diagnosis has been defined and made very much more accurate and clear by the methods which have been presented today. Without symptomatology and without physical diagnosis, the electro-cardiograph and the polygraph and the Roentgen Ray amplified, enlarged and certified tremendously, they have made possible absolute and distinct advances in medicine, comparable with the advances which have been made in surgery. These methods are so extremely valuable that they should be at the command of all of those who are practicing medicine, and the time has come when I am sure we will all not only desire to command these methods, but will make it possible for us to command them. That is all that I wish to say, Mr. President.

The PRESIDENT: Dr. Doust, do you wish to add anything to the X-Ray side of this discussion?

DR. DOUST, Syracuse: Mr. President, I am sure that these pictures, particularly of the lung, have been very instructive to all of us. There is one thing I think that we should remember, and which Dr. Palmer spoke of, and which may be emphasized, and that is the fact that in the diagnosis of pulmonary tuberculosis by the X-Ray, particularly the incipient conditions, we must remember that the X-Ray does not differentiate between an active process and a latent process. Of course, we all of us know that a great number of individuals, adults, have latent pulmonary tuberculosis, have latent lesions, and if we depend too much upon the X-Ray in the differentiation between an active and a latent condition we will many times be led astray.

The PRESIDENT: Is there any general discussion? I have been calling names of leaders, but not with the idea of confining the discussion to them. We should be glad to hear from anybody who will take part in the discussions.

DR. ROCHESTER: If I might be permitted to take the floor for a minute to talk a little about the X-ray. I have been very greatly impressed by the value of the X-ray in the study of the changes; of course not so much with the heart cases as in the pulmonary cases, and as the writer took up pulmonary cases quite extensively I don't think there is any positive necessity for taking them up. In the study of tubercular cases we find a great deal of value in the X-ray. We have been able by means of the X-ray, in connection with our physical examination, to place lesions very closely, locate them very closely indeed, and very incipient ones, too, with the aid of the X-ray. I do not think the X-ray can take the place of physical examination by any means, but it helps a great deal and is of great assistance to us. I would like to relate one case, not tubercular, in which the X-ray pointed out to us a very valuable finding. I was called to see a patient in consultation with this history: of cough, which had lasted for several months, and expectoration of a large amount of material at one time, and then subsequently, the old history of cavity emptying and filling up again, and of course there was a very bad smell with this expectoration, which gave us the idea of bronchiectasis, and he had all the symptoms. By physical examination, the only thing we could demonstrate was a decided dullness in the right ventricular region between the second and fourth ribs, and we could not get any of the auscultatory signs in the cavity at any time, even when the cavity was empty or when he had raised a large amount of sputum; we could simply get dullness; but under the circumstances we took him up and fluoroscoped him, and I never saw a more beautiful exhibition of a cavity with fluid in it than that. The cavity was entirely filled, and as he breathed we could see the fluid move in it.

It was perfectly beautiful, it was more beautiful than the ordinary hydro-pneumo-thorax, because we expect to see that move, but this was very beautiful indeed. This was not a tubercular case, it was a fibrated lung with this bronchiectasis. I took him to the hospital to drain, and Dr. Russell, who was acting as Dr. Sutter's assistant then, thought that he would use the artificial pneumo-thorax instead of draining this case, and we used the artificial pneumo-thorax, and only once did we produce the nitrogen. The result was perfectly beautiful, and I examined the man three days ago and he apparently had a perfectly normal chest, he was not spitting up anything, he was not coughing at all, he gained a great deal in weight, and I told him to come down—it was only yesterday that I examined him—and I told him to come down to the office so that we could fluoroscope him again, and I am sorry I am not able to give you the result of that in that case. It was quite remarkable to me. We owe the placing of that entirely to the X-ray.

The PRESIDENT: I will ask the writers of the papers now to reply to the discussion. Dr. Ross, will you begin?

DR. ROSS: In behalf of Dr. Loudon and myself, I cannot resist the temptation to again express our very heartfelt thanks for your kindly and appreciative welcome, especially because though we are quite near you, yet we are outside.

The PRESIDENT: Dr. Ross, we shall be very glad to see you again.

DR. PALMER: I have very little to say, except to thank those who discussed the paper. Dr. Doust made one statement, which I am not quite clear in my mind, what he meant by latent cases. Will you please explain, Dr. Doust, what you meant by a latent case?

DR. DOUST: I meant those cases in which there is some tubercular infection and the individual may never have known of it, but which has become healed.

DR. PALMER: I hardly agree with Dr. Doust on that, because you must take into consideration that tuberculosis is a case of tissue formation, fibrosis; that that forms an inflammatory condition which shows density, and therefore it is bound to show on the plate, not always on the flat single plate but on the very fine stereoscopic plate. We have been very negligent in these early cases of tuberculosis in not making stereoscopic Roentgenograms. They stand out beautifully. If you ever have an opportunity to look over Dunham's work and Wesley's work, of the University of Minnesota, do so. They have done wonderful work, and they have checked their work in this way and they correspond absolutely. Separate investigations. These little ramifications, as shown on the stereoscopic plate, stand out as little leaves or buds on a tree, and

you can see little infiltrations. In the old cases they are more dense, they give you a denser shadow, and it seems to me it is still more easy. It is the early incipient cases which follow along the bronchus as it divides here that are so hard to make out, and I must confess that I have got a lot to learn yet in these early cases, and the more we do of them the more accurate we will become in making a diagnosis of early tuberculosis.

The PRESIDENT: I am very sorry to have to announce to the members that one of the main participants in this meeting, and from whom I know we all expected a great deal of interest to us, a man well known around this part of the world, is sick and not able to come. I refer to Dr. Elsner of Syracuse. It was with great regret that I received a letter from him a day or two ago saying that the doctors told him to go to bed, and that he did not dare to disobey. He wished me to present to the Society his best wishes for a successful meeting, and to regret, as I know we all regret, his inability to participate in this meeting. His subject I know would have been of considerable interest to you, and I wrote him in the hope that he could send his paper up, but he sent word that his paper was going to be largely written in his mind, and it was therefore not possible to have somebody represent him; so we will pass on now to No. 8, The Treatment of Cardio-Vascular Disease, by Dr. Stockton, of Buffalo.

DR. CHARLES G. STOCKTON, of Buffalo, presented a paper entitled: "Treatment of Cardio-Vascular Disease." (Published in December issue).

DR. LARKIN: Mr. President and members of the Society: I think we are to be congratulated upon this very excellent paper of Dr. Stockton's, but I feel that we are left a great deal in the same position that we have been in in regard to treatment of cardio-vascular diseases in the past, that it is largely a matter of prevention. The prophylactic treatment is the treatment par excellence, and after the ravages of the disease have once set in we have the changes in the circulatory apparatus and we are almost powerless to overcome these changes. Of course we can treat the patient symptomatically and relieve a great many of the passing and distressing symptoms which they have, but I believe that in these cases we have to search for the source of the infection, for many times it is due to an infection. Syphilis I think causes a large number of our cases of cardio-vascular disease. Infections in the mouth or in the tonsils or coming from the intestinal tract are also a large source of the cause of so-called arteriosclerosis. What effect the ductless glands may have on this condition I think is still an open and debated question. I am in hopes that some day some one is going to discover that the ductless glands

do play more or less of an important part in this and probably help us out in our medication.

DR. ALLEN JONES: Mr. President, there are a few points I think well worth discussion in this admirable and comprehensive paper which Dr. Stockton has read. As Dr. Larkin says, prevention of course is of extreme importance, but Dr. Stockton's paper was on the treatment of cardio-vascular disease, and of course he could not take up that side. I was glad to hear Dr. Larkin mention the importance of the tonsils as ports of entry of infections causing renal disease. I think they are extremely important as a common cause of renal disease. Dr. Stockton mentioned three types of cardio-vascular renal disease, and his dissertation is very comprehensive. The first type of valvular disease illustrates the changes which take place in the kidneys and in the arteries, followed by a remarkable compensatory development on the part of the heart. Two cases I have in mind which illustrate that very particularly. One woman about twelve years ago had oedema, cardiac insufficiency. She had the congested kidneys at that time. She finally developed a high blood pressure and a very marked hypertrophy, got entirely rid of her oedema, and lived without the oedema, as I say, for twelve years, and lived for the latter years of her life with a high blood pressure. Those are quite remarkable cases. Another case I have in mind has done the same thing. It is remarkable that a heart disability and insufficiency could do this thing. What is there in the case which enables the heart to do that which we have very great difficulty in causing the heart to do by remedies in the other cases? The ductless glands may play a large part here. Dr. Larkin has mentioned them in helping along to do just that thing which will prolong the life of the individual and give rise to the cardio-vascular hypertrophy which enables her to live. The Doctor mentioned in these classifications a matter of oedema and spoke of the digitalis and other remedies for the control of the situation and the oedema. I have found in those cases that the Carrel diet is valuable. Indeed, it was in the cardiac insufficiency cases Carrel first fell into the habit of using this diet. It was largely used, I think, in Hamburg, in one of the large hospitals in Hamburg, not by Carrel, but later by one of the physicians there, a well known physician. The Carrel diet then in oedema of this sort is extremely valuable, and another remedy which I have found useful when digitalis fails as a diuretic is theocin. In two cases, stopping digitalis and giving a fair amount of liquid and using theocin in five grain doses for two or three days has resulted in the passage of an enormous quantity of urine and a very rapid subsidence in the oedema. In the second series of cases Dr. Stockton mentioned an entirely distinct type of renal disease

occurring in young people, in whom the blood pressure depends upon the renal disease and not upon an associated arteriosclerosis, and this case the Doctor mentioned in the paper had a blood pressure of 240, and coming into the hospital for final visit. She had been travelling in the west, in no condition to travel, had gone out to the coast, and was on her return east, to her home in the east; thoroughly tired out, thoroughly exhausted, and the picture of that condition. Her blood pressure dropped from 240 to 130 in 24 hours. She temporarily, one day, felt better, but went into coma two days following and died. Coincident with the drop in the blood pressure there was amenorrhoea, a very scanty urine; so that merely illustrates the importance of the high blood pressure in maintaining life in these individuals, showing the primary influence of the kidney and the distinct nephritic side of these cases. The third class of cases, of chronic interstitial nephritis, the type that Dr. Stockton has so well described, I think an old observation made by many practitioners is worth remembering, and that is that in those cases, in the early stages of those cases, if we happen to observe them carefully and systematically, a chronic low specific gravity of the urine is of great importance, and it is in those cases particularly that I have had occasion to notice a galloping rythm. In no other cases have I seen galloping rythm so often or quite so typical as in that case of chronic interstitial nephritis. My experience has taught me to regard galloping rythm as a very grave prognostic sign. The patient may temporarily improve, but the condition must be regarded as most serious. The Doctor mentioned pheno-sulpho-phthalein, and there is just one point regarding that product which I wish to mention, and that is, that while the test is of great value as ordinarily used in a routine way in cases, yet when the arm is tremendously fat and the product is injected by yourself or by a nurse into the fat, and the first two hours urine is gathered, there may be a false reading. The whole of that product is not absorbed and the test proofs are extremely low; whereas, if three hours more are allowed to elapse a different result is obtained. A long needle should be used to go through the fat and reach the muscles, so as to make an intra-muscular injection. It would be desirable to use the injection intravenously, I mean to people with enormous adipose.

DR. STOCKTON: Mr. President, I do not want to go away with the feeling that I have been leaning too much on these newer studies in acidosis, but they have been to me of intense interest during the past year, and I at first was very much confused over their interpretation. The work of Palmer and Henderson of Harvard, and others in Boston and New Haven, whose publications you have doubtless read in the archives of Internal Medicine, most of them have been published, and in

the *Journal of Physiology*,—you doubtless have been, as I was, interested to see what these things might indicate, and how they might be applied to clinical medicine. What I have been attempting to do this year, and this paper was intended to show in part that these pathological studies have a very definite clinical valuation, and I am sure that I know more about the progress of the case and understand certain otherwise mysterious things in a case by having the advantage of this work that these physiologists have so recently been doing, and those of you who have not given the matter attention, I beg that you will not turn the subject aside until you have looked into it and had it thoroughly tried by a competent physiologist chemist. There is no doubt at all that there is a big background in this subject of the hydrogen iron concentration, its bearing on acidosis, its relation to metabolism, and relation to heart and kidney functions. That is the one thing on which I want to lay emphasis before I sit down, because you might think I was getting rather too learned on the subject of hydrogen iron concentration. I know mighty little about it, I am trying to learn something about it, and I have through the help of those who know more been able to get something out of it. That is about all. Thank you very much.

In the absence of Dr. A. J. Colton, of Buffalo, the Secretary read his paper entitled: "Tuberculosis as we should view it."

THE PRESIDENT: This paper of Dr. Colton's is open for discussion. Has anybody any remarks to make on this paper? If not, this marks the conclusion of our meeting. I want to thank the various members who have taken part in this meeting for their co-operation in the success of today, and I now declare the meeting adjourned.

The Elmira Academy of Medicine held a regular meeting Feb. 2, Dr. C. F. Abbott of Elmira presenting Two Bladder Cases, and Dr. O. J. Bowman a paper on Tobacco Heart.

The Rochester Academy of Medicine, Section II, met Feb. 9. Dr. Wm. W. Percy gave a paper on Diagnosis and Surgical Treatment of Affections of the Pancreas and Spleen; Dr. Charles Reitz on Diagnosis and Surgical Treatment of Diseases of the Rectum, with Special Reference to Early Diagnosis of Cancer.

The Buffalo Academy of Medicine has held the following meetings since our last report: Jan. 26. Pathology, Latent Syphilis, with lantern slides, Dr. Aldred S. Warthin of Ann Arbor.

Feb. 2, Stated Meeting under auspices of Section of Surgery, Indispensability of X-ray in Treatment of Fractures, with lan-

tern slides, Dr. C. R. Borzilleri; Inhalation Analgesia and its Application to General Surgery, Dr. John H. Evans.

Feb. 9, Medicine, Syphilis and Epilepsy, Dr. Wm. T. Shanahan, with Pathologic Reports by Dr. J. F. Munson, Craig Colony for Epileptics, Sonyea. Moving Pictures of Epileptic Seizures, Dr. A. L. Shaw, same place.

Feb. 16, Obstetrics and Gynaecology, Twilight Sleep, Dr. Wm. T. Getman; Nitrous Oxid-Oxygen, Dr. N. Sproat Heaney, Chicago.

Feb. 23, Pathology, The Public Health Laboratory in its Relations to the Community, Dr. Rogen G. Perkins, Cleveland.

The Gross Medical Club held their annual meeting at the Hotel Touraine, Friday, February 18.; Dr. J. Henry Dowd, president, presided; Mrs. C. J. Dwyer acted as hostess. An interesting paper, the Treatment of Rheumatism by Phylacogens, was read by Dr. H. C. Lapp of Tonawanda. The paper was discussed by practically every member present, the consensus of opinion being "There is no doubt of their efficiency in true rheumatism, but the first care should be used in the diagnosis; be sure you are treating rheumatism and not nerve involvement, as neuritis, neuralgia, etc."

Many interesting cases were reported, cases out of the ordinary run of every day practice.

Dr. D. C. McKinney,—A child of four months, well nourished, but every time she was fed, the bowels moved at once, accompanied by straining and pain. Examination revealed a horse shoe fistula, a rare condition at this age.

Dr. Phelps, East Aurora—A girl twelve years old, recovered, apparently, from chicken pox. About a week after was seized with chills and high fever, lobar pneumonia. Every day, from three to five p. m., temperature registered 105 to 105 4-10 F. It would then drop to almost normal. Careful examination revealed no tubercle bacilli. Fever continued for seven days and gradually dropped to normal; there was a perfect recovery.

Dr. Wilcox, Tonawanda—Patient developed tetanus, following a slight wound of the hand. 20,000 units tetanic serum was given every six hours for four or five days, or until spasm was released. It was then reduced but almost immediately returned, and the above dose was repeated every six hours until entire absence of symptoms. The patient made a good recovery.

Dr. Baker, Williamsville—An epidemic of grippe, occurring in an old folks' home, all patients from 65 to 80 years of age; 15 died. One peculiar phase of this epidemic was, practically all these patients, after several days of appropriate treatment,

would be seemingly greatly improved, when suddenly they would die, apparently from cardiac failure.

Dr. J. Henry Dowd—Reported the following case because of the two quite rare accompaniments of a very common condition, still one which may arise at any time, giving you much alarm. Mrs. T. was asked to be seen in consultation for syphilis; a sample of urine was asked for before seeing her. This revealed no pathological condition. The phosphatic index was 20% minus, crystals normal in shape, but showing hysteria. The patient was found in bed, where she had been for two weeks, the only symptom she complained of being that she could not see, was blind. She was well nourished, had good appetite, bowels regular, no pain of any description. She could go to the bath room when necessary, but could not get up for meals or even to get a drink of water. Careful examination revealed no evidence of syphilis, in fact, she never had this disease. Fluid extract of valerian was ordered, and patient asked to be watched carefully, telling the family her condition was undoubtedly hysteria. In two weeks again, she was seen, being found in practically the same condition.

It was explained to the family that medicine would do her no good, and strenuous methods must be used. When she asked for water, she was to be told to get up and get it, and when meals were ready, they were to be announced as follows: "Dinner is now ready in the dining room, service is free." Under no condition was any food to be taken to her; twelve hours sufficed to bring her downstairs for her food, the blindness disappeared at the same time. The appearance of the alkaline crystals showed positively the condition before the patient was seen.

Dr. Geo. F. Cott—Consultation in case of difficult breathing revealed a large swelling on the larynx. The trachea was opened and the patient slept well all night. She died very suddenly next day. There is no doubt that the condition was caused by bacillus La Grippe.

Case 2. Eleven years previous, this case was operated for abscess of the brain. This patient died suddenly a few days ago, and an autopsy revealed enlargement of the petrous portion and regeneration of the temporal bone, where it had been removed. Pus was found in the middle ear, but having no connection with the brain.

The election of officers resulted as follows:

W. Warren Britt, Tonawanda, President;

James E. King, Vice-president;

Chester C. Cott, Secretary.

A banquet followed at which Mme. Reister, the charming vocalist, rendered several selections. She was accompanied at the piano by her sister.

TOPICS OF PUBLIC INTEREST.

The Corning Hospital has received a legacy of \$5,000 from the estate of Mrs. George S. Sutherland.

Investments. The Medical World gives a list of 42 insurance companies which have gone out of existence. Most of these are for liability, accident, etc. Mention is also made of three fox fur companies capitalized, respectively at \$31,250, \$22,000 and \$11,000 per pair of foxes owned. If you have money to invest, seek something substantial, that you can inspect and if necessary, manage yourself.

Radium has diminished in cost from \$120,000 to \$36,000 per grain, by the research of the U. S. Bureau of Mines.

The Typhus Germ, discovered by Harry Plotz of N. Y., has been verified during the epidemic in Serbia.

The Nobel Prize, 1914, has been awarded to Dr. Robert Barany of the University of Vienna for research in the physiology and pathology of the ear. No prize will be awarded for 1915, but an award will be made in 1916.

Quarantine of Syphilis. A woman of Springfield, Mo., has been forced to submit to quarantine by the Board of Health.

Physicians Needed. The Allies will shortly need 2,500 more English speaking doctors. Several well-paid vacancies exist in South Africa. Probably some of these positions will be open to Americans.

The State Board of Health of Ohio has ruled that the terms Dr., Doctor, M. D., Physician and Surgeon, may be used only by regularly graduated and licensed physicians.

Health Insurance. The American Association of Labor will introduce into the N. Y. legislature a bill providing for insurance of all men and women "gainfully employed" whose earnings are less than \$1,200 a year. The bill is said to be modeled after German and British examples. For obvious reasons, such a bill should receive most careful attention from the medical profession. The general principle is good, but \$1,200 is a rather high level of income at which to begin philanthropic intervention and, as has been shown by experience abroad, the details of such a bill may work injury to our profession.

Medical Examination of Waiters. Employees of hotels, restaurants and the like, engaged in preparing and serving food, are now required to be examined twice a year in Toronto. A good idea. We happen to know of a favorite soda fountain that has recently been avoided by several intelligent laymen, or at least laygirls, because the dispenser was pimply. So far as an ambulance diagnosis is dependable, he probably has nothing worse than acne and not the terrible infliction as to which the children are now being educated, but the effect on business is the same.

The Millionth Model T Ford Motor was completed at 1:53:30 p. m., Dec. 10, 1915. It is said to be exactly the same as the first of this model, not of the Ford in general, turned out in October, 1908. This gives one an idea of the rapid automobilization of the country.

Compound Interest. In judging of the value of an investment, the following table compiled by the Boston News Bureau is useful. It assumes that \$100 is deposited on the first of each year and that interest and principal are not touched. It is practically correct only for the first two columns, representing bank interest, since it is impossible to compound interest immediately in ordinary investments. Allowance would also have to be made for the transfer of a part of the sum, whenever the total approached the limit allowed by a savings bank:

At end of year:	3%	4%	5%	6%
1	\$103	\$104	\$105	\$106
2	209	212	215	218
3	318	325	331	337
4	431	442	453	464
5	547	563	580	598
6	666	690	714	739
7	789	821	855	890
8	916	958	1,003	1,049
9	1,046	1,101	1,158	1,218
10	1,181	1,249	1,321	1,397
11	1,319	1,403	1,492	1,587
12	1,462	1,563	1,671	1,788
13	1,609	1,729	1,860	2,002
14	1,760	1,902	2,058	2,228
15	1,916	2,082	2,266	2,467
16	2,076	2,270	2,484	2,721
17	2,241	2,465	2,713	2,991
18	2,412	2,667	2,954	3,276
19	2,587	2,878	3,207	3,579
20	2,768	3,096	3,472	3,899

From a calculation which we made some time ago, with regard to life insurance, we are inclined that the above table refers to compounding once a year, whereas some banks compound every quarter and pay 4%. For instance, here are the figures on a 20-year policy, represented as being a good investment aside from the insurance value. Except that the actual amounts were reduced to the basis per \$1,000 insurance, they represent an actual experience. The total amounts differ somewhat from those of the table as premiums were paid semi-annually and allowance was made for compounding interest at the same intervals:

Total premiums paid	\$600.01
Surrender value at end of 20 years	626.53
Actual interest on investment	26.52
Value of accumulated premiums at 4% simple	849.12
Value of premiums at 4% compounded semi-annually	929.58
Loss as compared with savings bank	303.05

It should be conceded that, according to actuary's statistics, the actual average payment for death losses, with interest, would come to about \$206 on any single policy of \$1,000. Thus, as compared with the savings bank, the cost of the insurance factor was about \$97. At 5% compound interest, which can easily be made on conservative investments, the total value of the premiums should have reached about \$1,042. The loss on the insurance investment, on this basis would be about \$415, and the charge made by the company for skill in investing, clerical labor, etc., would be about \$210 beyond the average loss in paying death claims. It will be noted that the premium paid on \$1,000 insurance was almost exactly \$30 a year but, owing to a temporary excess charge and subsequent rebate on passing a suppositious danger age, this average was not exactly maintained. It should be distinctly understood that no disparagement of life insurance is intended but, so far as we can gather from various reports, insurance has no value as an investment aside from the insurance itself. On the contrary, one sacrifices just about half of the actual cash invested, as compared with a savings bank deposit.

The Commission on Cancer of the Medical Society of the State of Pa., reports that the campaign was assisted by the co-operation of 66 medical journals (including this), that 38 counties in Pennsylvania held special meetings devoted to the consideration of cancer, with a total attendance of 1419, 20% of the total membership of the state society. Nothing is said as to actual accomplishments toward the solution of the cancer problem. Cancer deaths (in Pennsylvania) increased from 60.7 per 100,000 population in 1906 to 66.4 in 1911. Note: This increase may not be reliable. Estimates of population are apt

to increase with undue rapidity in the years between censuses and to be suddenly set back to actual facts when the census is published. Obviously if this occurs, an increase in death rate from any cause would be noted. Again, we must allow for improvements in diagnosis, especially in regard to the detection of internal cancers, and for greater and greater efforts to secure full death reports, especially from cancer. Meantime, the average age of the population has been steadily increasing on account of sanitary and other improvements, so that more cancer material is available.

Diabetic Foods. The U. S. Dept. of Agriculture has ruled that ground gluten, gluten flour and self-raising gluten flour must contain not over 10% of water; not less than 14.2% of nitrogen in the water-free ground gluten, nor less than 7.1% in the water-free flour; ground gluten must contain not over 15% of nitrogen-free extract (protein factor 5.7); gluten flour not over 56%; ground gluten must contain not more than 5.5% of starch, gluten flour not more than 44% (diastatic method). A food designated as "diabetic" must contain not more than the proportion of glycogenic carbohydrates as the normal food of the same class, and the label must not give the impression that it may be used in unlimited quantities.

Change in City Physicians for Buffalo. The council has reported in favor of substituting four physicians at \$1,800 for the 10 at various low salaries. Four health stations will be provided and the physicians will be on duty from 8.30 till 2, and will serve at dispensaries from 2 till 4. In addition to their regular duties, they will examine tuberculous suspects, care for sick school children and look after the milk stations. If the city physicians are still expected to respond to emergency calls and attend obstetric cases at night, they will earn their salaries.

Administration of Anesthetics. The New York Society of Anesthetists has notified the County Medical Societies of New York State, that it proposes to introduce an amendment to the Public Health Law (Art. VIII, Sec. 160, par 7) to make it illegal for anyone except a licensed physician to administer a general anesthetic.

At first thought this would seem right and proper, as this change is apparently for the purpose of preventing unauthorized persons from practicing medicine. But upon careful consideration it is found to be a very radical step which would work great inconvenience and damage upon surgeons and obstetricians, and great injustice upon the nursing profession. A law making it illegal for anyone to give an anesthetic ex-

cept as **prescribed** by a regularly licensed physician or surgeon would be much better.—Crouse-Irving Bull. Jan.

Sanatarium Scandal. A committee induced the Onondaga County Board of Supervisors to provide a hospital for 125 tuberculosis patients at a cost of about \$175,000. A hospital is being completed at a cost of nearly \$600,000 and a capacity of about 80 patients. Apparently about \$42,000 of the \$600,000 has been actually stolen, and public opinion is boiling with wrath to punish the petty thieves who divided this spoil. The fact that nearly \$400,000 was wasted does not seem to cause much anxiety.—Crouse-Irving Bull., Jan.

Members of Legislature, Western N. Y. Senate:

38. J. H. Walters, 315½ Genesee Street, Syracuse.
39. W. H. Hill, Lestershire.
40. C. J. Hewitt, R., Locke.
41. M. S. Halliday, R., Ithaca.
42. T. B. Wilson, R., Hall.
43. C. D. Newton, R., Geneseo.
44. A. D. Sanders, R., Stafford.
45. G. F. Argetsinger, R., Rochester.
46. J. B. Mullan, R., Rochester.
47. G. F. Thompson, R., Middleport.
48. C. T. Horton, R., 905 D. S. Morgan Bldg., Buffalo.
49. S. J. Ramsperger, D., 232 Emslie Street, Buffalo.
50. W. P. Greiner, D., 1037 Walden Avenue, Buffalo.
51. G. E. Spring, R., Franklinville.

Assembly:

- Allegany—W. Duke, Jr., R., Wellsville.
- Cattaraugus—D. H. Ames, R., Franklinville.
- Cayuga—W. F. Whitman, R., Venice Center.
- Chautauqua—L. L. Fancher, R., Jamestown; J. A. McGinnies, R., Ripley.
- Chemung—R. P. Bush, D., Horseheads.
- Chenango—B. Lord, R., Afton.
- Erie—1. Alex. Taylor, R., 115 Franklin Street, Buffalo; 2. R. Graves, 68 Manchester Place, Buffalo; 3. N. J. Miller, R., 12 Cayuga Street, Buffalo; J. M. Mead, D., 137 Gold St., Buffalo; 5. J. A. Lynch, D., 694 So. Division Street, Buffalo; P. C. Jezewski, R., 173 Stanislaus Street, Buffalo; 7. J. J. Rohmbild, R., 31 Burch Avenue, Buffalo; 8. L. W. Gibbs, 15 Depew Avenue, Buffalo; 9. W. W. Cheney, R., Eden.
- Genesee—L. H. Wells, R., Pavilion.
- Livingston—G. F. Wheelock, R., Leicester.
- Madison—M. E. Tallett, R., DeRuyter.
- Monroe—1. J. A. Harris, R., Penfield; 2. S. L. Adler, R., Roch-

ester; 3. J. R. Powers, R., Rochester; 4. F. Dobson, R., Charlotte; 5. F. W. Judson, R., Gates.

Niagara—1. W. Bewley, R., Lockport; 2. A. N. Parker, R., Niagara Falls.

Oneida—1. J. J. Hess, D., Utica; 2. L. M. Martin, R., Clinton; 3. G. T. Davis, R., Rome.

Onondaga—1. E. A. Arnts, R., 628 No. Noseti Street, Syracuse; 2. J. L. Kincaid, R., Robineau Road, Syracuse; 3. Geo. Fearon, R., 511 Van Buren Street, Syracuse.

Ontario—H. E. Wheeler, R., East Bloomfield.

Orleans—A. A. Comstock, R., Waterport.

Schuyler—H. J. Mitchell, R., Watkins.

Seneca—W. J. Maher, R., Seneca Falls.

Steuben—1. R. B. Oldfield, R., Bath; 2. R. M. Prangen, R., Hornell.

Wayne—R. A. Wilson, R., Savannah.

Wyoming—J. Knight, R., Arcade.

Yates—H. S. Fullager, R., Penn Yan.

The Charity Eye, Ear and Throat Hospital of Erie County.

located at the corner of Broadway and Michigan Avenue, Buffalo, has recently issued its 24th Annual Report, for the year ending Sept. 30., 1915. 3,261 new patients were treated and 346 old patients. 3,875 different diseased conditions were noted. A total of 12,659 treatments were given and 1,076 operations were performed. This institution is supported partly by an appropriation by the Supervisors, partly by donations. It is a most worthy charity. The staff is as follows:

Eye department—Surgeons in charge, Benjamin H. Grove, M. D., John J. Finerty, M. D., John D. Flagg, M. D.; Associate Surgeons, H. H. Glosser, M. D., Edmond E. Blaauw, M. D., Herman D. Andrews, M. D.; Assistant Surgeons, A. F. Luhr, M. D., Robert S. Taylor, M. D., W. C. Lewin, M. D., Clara A. March, M. D.; Clinical Assistant, Joseph C. O'Gorman, M. D.

Ear, Nose and Throat department—Surgeons in charge, George F. Cott, M. D., E. A. Forsyth, M. D., Clayton M. Brown, M. D.; Associate Surgeons, Wm. F. Jacobs, M. D., George R. Turk, M. D., Walter J. M. Wurtz, M. D., Thos. W. Connors, M. D., R. C. Conklin, M. D., Chester C. Cott, M. D., Frank C. Kleckner, M. D., Harry N. Feltes, M. D.; Assistant Surgeons, Francis A. Drake, M. D., Royal A. Paxton, M. D., Charles B. Handel, M. D.

Nervous department—Edward A. Sharp, M. D., physician in charge.

Consultants—Surgeons, Edward J. Meyer, M. D., Marshall Clinton, M. D.; Physicians, Henry C. Buswell, M. D., Earl P. Lothrop, M. D.; Neurologist, James W. Putnam, M. D., Edward A. Sharp, M. D.; X-Rayist, Leonard Reu, M. D.; Electro-

Therapeutics, A. W. Bayliss, M. D.; Dermatologist, Grover W. Wende, M. D.; Pathologists, Charles A. Bentz, M. D., William F. Jacobs, M. D.; Nurse in charge, Miss Catherine Zimmel, R. N.; Registrar, Miss Tillie Mayer.

The Research Institute of the National Dental Association was incorporated June 24, 1915. It occupies two large residences on Euclid Avenue, Cleveland. Its first report includes lists of directors, members, etc., and of problems begun or contemplated. Among these are systemic diseases resulting from oral infections, such as various joint diseases, iritis, nephritis, gastric and duodenal ulcer, glandular infections, pneumonia, pyorrhoea, dental caries, the brown stain of teeth, whose cause is entirely unknown, a platinum substitute (dentists using one-third of the world's production, valued at 2½ millions), filling of infected roots, oral bacteriology, salivary disorders, facial deformities, relation of ductless glands to dentistry, orthodontia, are included. Special research rooms will be available for visiting dentists. If this last item means that facilities will be offered to the profession generally, without special influence or appointment, it is not only of value in itself but as a precedent to similar medical institutions.

Choice of Specialties at Harvard Medical School.

	1st Year	4th Year		
	Choice	Choice	Unchanged	Changed
Surgery	17	16	11	6
Internal medicine	5	10	4	1
General practice	10	10	6	4
Pediatrics	5	9	4	1
Gynecology and obstetrics...	4	6	2	2
Public health	1	3	1	0
Eye and ear	2	2	2	0
Orthopedics	4	1	1	3
Neurology	7	1	0	7
Genito-Urinary	0	1	0	0
Nose and throat	1	1	1	0
Physiology	0	1	0	0
Pathology and bacteriology	2	0	0	2
X-ray	1	0	0	1
Uncertain	11	5	1	

—Alumni Assn. Bulletin.

Range of *Ceanothus Sanguineus*. This has been considered limited to the western slope of the Rocky Mountains or, at most to the headwaters of the Missouri. Oliver A. Farwell of the Botanic Dept. of Parke, Davis & Co., reports in *Rhodora*, vol. 17, 1915, its discovery in the Keweenaw Peninsula, Mich.,

as early as 1886, when it was thought to be *C. Americanus*, and its recent identification as *C. Sanguineus*. (Note: *C. Americanus* contains about 9% of tannin and was used as an astringent, locally and internally. We wish to emphasize, not so much the value of such field work as a basis for pharmacology as the general availability of botany as a hobby for physicians, especially since the advent of the automobile. There is opportunity for new discovery along these lines, even in our own territory, not to mention the possibility of collecting medicinal herbs of considerable pharmacologic and commercial value. But we admit that, personally, no binomial Latin plant that grows is so interesting as a bare field that may yield Indian relics.).

Vital Statistics of Buffalo.

	1882	1891	1910	1913	1914	1915
Population	175,000	255,664	423,715	446,889	454,112	461,887
Total deaths—all ages.....	4,212	6,001	6,940	7,043	7,040	6,853
General death rate	24.06	23.47	16.37	15.76	15.50	14.83
Living births	4,809	8,309	10,008	11,867	12,612	12,683
Birth rate	27.47	32.49	23.61	26.55	27.77	27.45
Deaths under one year.....	1,110	1,786	1,641	1,631	1,533	1,373
Deaths under one year during three summer months.	509	678	516	584	494	370
Deaths under five years....	2,043	2,609	2,323	2,070	1,936	1,829
Premature births	44	145	261	295	306	290
Stillbirths	221	398	393	534	545	491

Note—Premature births are counted as births and deaths; stillbirths are not included in births nor deaths, but counted separately.

The years in the above table are selected for the following reasons: 1882 was the first year when accurate records were kept; in 1891 the new city charter, employing a full-time health commissioner, went into effect; in 1910 the present health commissioner was appointed, while the last three years are for immediate comparison.—Buffalo Sanitary Bulletin.

We would like to publish similar statistics for other towns in Western New York.

University Day. In accordance with precedent, the University of Buffalo celebrated Washington's Birthday. The Nu Sigma Nu, I. C. I. Chapter, held a dinner dance the evening before. The formal exercises of the University were held at 11 a. m., Feb. 22, with an address by George W. Wickersham, formerly Attorney General, and a historic review by Rev. A. V. V. Raymond, D. D., LL. D., of the movement to secure an Arts Dept. for the University, beginning with the election of Charles P. Norton, as Vice Chancellor in 1909. Rumors that

have been current for some time were confirmed by the announcement of gifts of \$500,000 from the family of the late Seymour H. Knox, which rendered possible the formal transfer of the building of the Women's Educational and Industrial Union on Niagara Square. Mrs. George W. Townsend, the founder, for many years President and of late years Honorary President of this institution, made a brief address. Gen. Edmund Hayes also gives \$250,000, conditional on the raising of a total of \$1,000,000. The Arts Dept. is already giving a two years' course, is thus expected to be in full operation in 1919.

The second annual dinner of the Associated Alumni was held at the Statler in the evening, Dr. Thos. H. McKee, Dean of the Medical Dept., acting as toastmaster.

The U. of B. Dramatic Club presented A Night Off at the Majestic Theatre on the evenings of Feb. 25 and 26.

Membership Roster of State Medical Societies. Percentage of members to total number of physicians in the state as per 1915 report of A. M. A.

Hawaii	.75	N. Dak.	.54	Utah	.48
Wis.	.73	Georgia	.54	California	.47
Virginia	.70	R. I.	.54	Kansas	.47
N. H.	.70	Wash.	.54	So. Dakota	.47
Alabama	.69	Penn.	.53	Porto Rico	.47
Minn.	.66	New Jersey	.53	Oregon	.45
Illinois	.63	Maine	.52	Florida	.45
N. Car.	.61	Maryland	.52	Arkansas	.44
Mass.	.60	New York	.52	Delaware	.41
Mich.	.60	Ohio	.50	Louisiana	.40
Vermont	.57	Kentucky	.50	Dist. of Col.	.39
Arizona	.57	W. Va.	.50	Colorado	.38
Conn.	.57	Wyoming	.50	New Mex.	.34
Texas	.57	Indiana	.49	Tennessee	.34
Neb.	.56	Missouri	.49	Nevada	.32
Canal Zone	.55	Oklahoma	.49	Idaho	.31
Iowa	.55	Montana	.49	Phil. Islands	.13
S. Car.	.55	Mississippi	.48		

The British War Office reports the **Mortality of Troops** to be 1:3 wounded; in the trenches, 1:2 wounded. We understand that this excludes strictly medical mortality. For previous wars, the ratio of killed (including deaths shortly after receiving wounds) to wounded has been about 1:4 or 5.

Registration Area Mortality 1914. This area now comprises about 2-3 of the total population of the U. S. 898,059 deaths were reported, about 13.5:1000. More than 30% of all deaths

were due to three causes, heart disease, tuberculosis and pneumonia; and more than 60% were due to 11 causes, including also nephritis, cancer, diarrhoea and enteritis, apoplexy, arterial diseases, diphtheria, diabetes and typhoid. Tuberculosis was the cause of 96,903 deaths, of which 84,366 were pulmonary or acute miliary. It will be noted that the long standing rule that 1-10 of all deaths are due to tuberculosis still holds approximately true. But it is also true that deaths from tuberculosis have declined at almost exactly the same rate as the general mortality. Prior to 1904, the tuberculosis death rate fluctuated close to a rate of 2:1000 population, although even at that date, the rate of 20:1000 for all deaths in relation to population, could not longer be considered normal. Since then, there has been a pretty steady decline to 1.468:1000 for tuberculosis. Pneumonia gave a death rate of 1.27:000, the lowest on record (Total deaths 83,804). The only other group of diseases giving a death rate of more than 1:1000 population, was Bright's disease and nephritis, total 67,545 deaths, 1.024:1000.

Narcotic Law Notes. The press continues to relate convictions for non-payment of license fees, charges of smuggling drugs, voluntary presentation of victims for treatment, etc. While we have not been in entire sympathy with the discrepancies between national and state laws and between rulings and actual facts, we must confess that these laws have exercised a marked influence on narcotic addiction, although they have also shown that the evil had been exaggerated.

The Emergency Hospital of Buffalo, by a minstrel show given by The French Club, and by subscriptions, has raised a fund for the equipment of the X-ray laboratory.

The New York Committee for the Prevention of Blindness was organized about seven years ago, under the auspices, and with the financial assistance of the Russell Sage Foundation. It owes its origin largely to the efforts of the Chairman of the Committee, Miss Louise Lee Schuyler, who is also a member of the Board of Directors of the Russell Sage Endowment Fund.

The report of the State Commission for the Blind had graphically shown that a large amount of the existing blindness might have been prevented had proper measures been taken, and emphasized the necessity of an organized movement to protect the eyes wherever they were in danger from whatever cause. It was found that about one quarter of all blindness in state schools for the blind everywhere was due to neglect of proper protective measures of infants at birth. The edu-

cational measures which have been so largely inaugurated by the American Medical Association, and carried out by State Boards of Health, have already materially reduced the number of victims that annually were due to infections of this character.

The State National Committee, with all of its machinery for carrying on an effective campaign, soon found that it was being overwhelmed by demands for advice and assistance in the propaganda for the conservation of sight from other states, so last year additional support was obtained from the John D. Rockefeller Foundation, a very generous contribution made by the citizens of Buffalo, and the scope of the Committee made national.

Special efforts have been made on the line of public education and of the enactment and enforcement of such laws as may be necessary to prevent unnecessary blindness or the injurious use of the eyes. The special lines to which attention has been directed has been that of *ophtalmia neonatorum* through health departments and otherwise, legal enactments against the sale of improperly labeled wood alcohol, with advice to the public as to its toxic effect, especially in causing atrophy of the optic nerves, in securing proper lighting in schools, public buildings and homes, and in preventing needless accidents in workshops and elsewhere, which is a very prolific cause of loss of sight, and in making more widespread of the existence, the danger and the control of trachoma. A popular lecture has been provided and a series of lantern slides prepared which will be loaned to public speakers as a method of popular education on this subject. These slides, with the synopsis of the lecture, will be loaned without charge, the borrower paying only for transportation and any breakage which may occur.

A field agent, in the person of Mr. Gordon L. Berry, has been employed and he is now occupied in visiting many of the southern states in the development of the propaganda for the prevention of blindness. The work which he has already accomplished has been of great value. He is working in co-operation with the medical associations, the boards of health, local oculists, church societies and others interested in public welfare, and has already developed great enthusiasm for the work in the districts which he has visited. A large number of valuable publications have been issued by the committee which are distributed gratuitously or at cost.

It was proposed that the secretary would shortly visit Buffalo for the purpose of developing in conjunction with the Health Department, the Department of Public Education, the medical profession and others, a careful study as to the prevalent causes of blindness as they were found there, with the purpose of making that city a basis for preventive measures which could be used elsewhere. The resignation of the secretary,

Miss Van Blarcom, who has accepted the position of secretary for the Illinois Society for the Conservation of Vision in Chicago, while it will greatly broaden the work, will at the same time delay for a time the more intensive work which is in prospect. It is evident, however, that a movement is now well under way which gives promise of being of incalculable benefit to every community which it reaches. Reports of this work will appear in the Journal from time to time.—F. Park Lewis.

PERSONAL.

Announcement of removal, travel, and other matters of interest are requested. Please report errors in the listing of any physician in the State and other directories, that we may co-operate with the State Society in securing a correct list.

Dr. Willis Lynn has opened an office at 91 East Avenue, Rochester, practice limited to diseases of women and children.

Drs. Geo. F. and Chester C. Cott of Buffalo have moved their offices to 1001 Main Street, between High and Goodrich Streets.

Mr. Alexander Johnson, Field Secretary of the Committee on Provision for the Feeble-Minded, gave an illustrated lecture at the Buffalo State Normal School, Feb. 7, under the joint auspices of the School and the University of Buffalo.

Dr. Carl E. Muench has been elected Superintendent of the Crouse-Irving Hospital of Syracuse, and Miss Marion F. Jones has been appointed Superintendent of Nurses, these appointments filling the place of the former Superintendent, Miss Mary E. Shanahan, resigned.

Dr. L. H. Staples of Buffalo left for a trip to Florida and Cuba Feb. 14.

The following changes in addresses in alumni of the Medical Dept. of the University of Buffalo have been reported: Dr. Ellen R. Spragge, 1888, from 926 Academy Street, St. Louis, to 2010 Horton Avenue, Grand Rapids; Dr. G. P. Richardson, 1876, from Middleport, N. Y. to Madison, N. J.

Dr. Henry Jones Mulford of Buffalo announces the removal of his office and residence to 949 Delaware Avenue. In addition to diseases of the nose, throat and ear, Dr. Mulford will take up another line of work, which may be designated

"Child Analysis." This embraces a complete physical and mental examination of the child, by means of which the grade of any child may be determined, whether he be above normal or below, and where he belongs in school or upon the playground.

Dr. P. H. J. Buckley, U. B. 1915, has been appointed to the house staff of the Buffalo General Hospital.

OUR CONTEMPORARIES.

Vermont Medicine, the official organ of the Vt. Medical Society, begins its first volume with the January issue. In a sense, it succeeds, after about a year's intermission, the Vermont Medical Monthly, ably conducted for many years by a private expression of public spirit, and which was abandoned because of lack of professional support. An economic issue is presented.

The Illinois Medical Journal, the official organ of the state society, in its December issue, protests against the usurpation of the Cook Co. Hospital by a group of Chicago surgeons prominent in the American College of Surgeons; also against the increase in the fee for post graduate students from \$5 a year to \$5 a month. It seems to us that the College can scarcely be held accountable for the acts of individual fellows; certainly not until a protest has been formally presented for its action. The question of hospital control is an old ethical problem which can never be satisfactorily settled except in strict accordance with the general principle that anything supported by the public shall not be exploited for personal benefit.

The Journal of Advanced Therapeutics, beginning with the January issue, is under new management and the name and, to some degree, the scope, are changed, the new title being American Journal of Electrotherapeutics and Radiology. The editorial staff remains the same with Dr. Wm. Benham Snow at the head.

Ether in Infectious Gangrene. L. Ombredanne, Bull. et Mem. Soc. Chirurg. de Paris, opens the wound, removes bits of projectile and clothing, makes parallel incisions over crepitating areas, washes with ether and applies gauze soaked in ether. An impermeable covering is applied. Dressings are changed daily for three or four days. Good results are usually noted in 3-6 days.

OBITUARY

Readers are requested to report promptly the death of all physicians in Western New York, or former residents of this region, or graduates of any medical school in Western New York, and to notify the families of the deceased of our desire to publish adequate Obituary notices.

Dr. Achilles Rose, P. & S. (Columbia) 1872, born in Ohrdruf, near Gotha, Germany, Nov. 4, 1839, died in New York Jan. 10, of pneumonia. He was educated at Zurich and Jena, leaving the latter in 1863 and coming to this country. He entered the U. S. Volunteers and served in 1864 and 1865. As a practitioner, his most important work was along the lines of external abdominal support for splanchnoptosis, and of balneology, including continuous immersion in typhoid and the use of the carbon dioxid bath and enema. A few years ago, we reviewed his book on Napoleon's Campaign in Russia, and he had written several articles dealing with medical history, especially along military lines. He was best known as an ardent advocate of reform of medical onamatology, implying that he was one of the most thorough students of ancient and modern Greek in the world. He had been decorated by the King of Greece and made an honorary member of the Academy of Medicine of Athens. The time is not ripe to pass judgement on this phase of his life work. Some hold that a mongrel vocabulary has the same advantages as mongrel blood. Others believe that, with greater general education of the people, and especially of the various professions with which ours comes into comparison, the prolific formation of technical terms of mixed Greek and Latin origin, will be a cause of shame to the medical profession and will even detract from its influence. This journal has always supported Dr. Rose in his general contentions, but has hesitated to supplant well established terms with those of pure ancestry but unfamiliar. We understand that Dr. Rose had, in preparation, a medical lexicon of correct Greek derivatives. This will be a worthy monument to Dr. Rose's medico-literary studies, even if it remains nothing but a curiosity of some library. It is altogether possible that it may be the foundation of a revolutionary change in our professional vocabulary. Only the future can tell. At any rate, it is fitting, even in these days of tolerance and freedom from prejudice, to recognize that the patient, persevering life work which Dr. Rose performed, almost without support and usually in the face of lack of appreciation, even of a certain kind of hostility, constitutes a form of heroism.

Dr. H. Frank Preston, Dartmouth 1888, died at Utica, Dec. 30, aged 52.



IN MEMORY OF
LT.-COL. WILLIAM WARREN POTTER, M. D.,
DIED MARCH 14, 1911, AGED 72,
Editor of this Journal from July, 1888, till his death.

Dr. Evan Gabriel Evans, Buffalo 1864, died at his home in Remsen, N. Y., Feb. 1, of asthma, aged 75. He was coroner of Oneida County for six years and a member of the board of supervisors for four years. He was also a clergyman.

Dr. George Crane (not listed in Polk nor State Directory), died at Addison, N. Y., Jan. 9, aged 76.

Dr. James J. Bowen, N. Y. Univ. 1895, died at Saranac Lake, Jan. 12, aged 40.

Dr. William H. Maynard, Syracuse, 1883, died at Syracuse Jan. 15, aged 57.

Dr. Charles Clifford Barrows, N. Y. Univ. 1880, died Jan. 3, aged 58, at Ithaca. He was Prof. of Gynaecology at Cornell and formerly resided in New York City.

Dr. Leroy Dwight Farnham, P. & S. (Columbia) 1878, died at Binghamton Jan. 3.

Dr. Walter M. Litchfield, Buffalo 1886, died at his home in Salamanca Feb. 9, aged 53. He came to Salamanca from Independence, Kas., six years ago. He was an oil producer.

ABSTRACTS.

Have you ever felt that this department of the **BUFFALO MEDICAL JOURNAL** was lacking in abstracts of your specialty, or that such as were published lacked the expert judgement which you yourself could have exercised in selection and preparation? If not, you are more charitable than the editor has been to himself. If so, will you assist in abstracting from a few journals, and thus make this department more representative and more valuable? Incidentally, there are few forms of study more helpful to the worker than this.

Industrial Poisoning from Celluloid Varnish in the Aeroplane Industry. Koelsch, Muench. Med. Woch., Nov. 16, 1915. The danger lies in the solvents: chloroform, carbon tetrachlorid, acetone, amyl acetate, formic acid acetylene tetrachlorid, etc. The symptoms obviously differ but may be grouped as gastro-enteric with jaundice and enlargement of liver and anaemia ultimately, or as nervous, with headaches, paraesthesiae, tumor, paresis, etc. 14 cases are reported, two fatal. 9 cases of acetylene tetrachlorid are also reported specifically.

Quinine Bihydrochlorid in Scarlatina. Chichkine, Gac. Med. Catalan, Jan. 1915, uses sterile, 30% solutions hypodermatically, 1 C. C. for children of 1-2 years, 2 C. C. for those 3-4 years, and increasing 1 C. C. for each year thereafter (probably with a reasonable limit, as this dose is relatively high). A single injection is said to reduce the temperature rapidly and to improve the subsequent course.

Epidemic Tetragenaemia. Fernand Tremolieres and Pierre Loew, Paris Med. Nos. 5 and 9, 1915, state that this infection is common in the present war and describe three types: benign, grave and pleuro-pulmonic.

Typhoid Carrier. B. R. Wakeman, Sanitary Supervisor of Jefferson, St. Lawrence and N. W. Franklin Counties, N. Y., Health News, Sept. 1915, reports a female domestic, aged 65, who had never had typhoid but had frequently been exposed in the region of "Typhoid Creek." 14 cases were apparently due to her in the last 20 years.

Effect of Potassium Iodid on Luetin Reaction. John W. Sherrick, Ann Arbor, Jour. Mich. State Med. Soc., Jan. A positive pustular or nodular luetin reaction can be obtained in 99% of all cases, irrespective of the presence of syphilis, if KI has been administered simultaneously or shortly before the intradermal test. Agar, starch, etc., introduced intradermally instead of luetin, will give a similar reaction, but the KI must have been very recently administered. Other drugs containing iodine have the same influence.

Congenital Cyst of Stomach. Wm. Lyon, Jackson, Jour. Mich. State Med. Soc., Jan. The female infant seemed normal at birth and weighed 7 pounds. Two days later vomiting began and the child nursed poorly. 19 days after birth, the weight had diminished to 5¾ pounds, and the general condition was bad. A mass larger than a goose egg was found in the upper abdomen, freely movable. It was tense and fluctuating. Lavage of the stomach brought away brownish mucus but did not affect the tumor. Puncture brought away 4 ounces of clear glairy fluid, the last being quite thick. The empty sac was still palpable. Improvement occurred but the fluid reaccumulated and was twice removed by tapping, with the same results. One month after birth, operation was done. The cyst was attached along the greater curvature, extending slightly beyond the pylorus upon the duodenum. The wall was thick and friable, and the pylorus was cut into and was with difficulty closed again, during the operation. Death followed. The histologic structure of the cyst resembled that of

the gastric wall, but with thinner and smoother mucosa. When full, the cyst caused pyloric obstruction.

Types of Pulmonary Tuberculosis Wherein Only Much Granules Occur in the Sputum. Ralph C. Matson, Portland, Ore., N. M. Med. Jour., Dec. Much is a proper name. Quite a thorough bibliographic history of the condition is given. The characteristic pathology of these cases is the proliferation of tuberculous tissue and its transition into fibrous tissue with little tendency to softening. Thus they correspond fairly well with the old conception of fibroid phthisis. Secondary contraction is a marked feature, followed by compensatory emphysema with asthmatic symptoms. Unless from exacerbations, there is no fever and the course is usually slow and without cachexia. Retraction and narrowing of the intercostal spaces occurs, with retarded motion or fixation. Fluoroscopic examination shows the diseased side smaller and darker, with ascent of diaphragm and displacement of larynx and trachea toward the diseased side. Physical methods alone are not, however, definitely diagnostic. D'Espine's sign, noted by Stoll has not been confirmed by the author. The tuberculin test is always negative. Tubercle bacilli are few if any and are usually detected only by concentration methods, of which preference is given to Ellermann and Erlandsen's. Of 164 suspected cases which did not show bacilli by direct methods, 14 revealed them by the Uhlenhuth method, 22 by the Seulte method, 36 (including the foregoing fractions of the series) by the Ellerman and Erlandsen method. The remaining 128 cases included 92 of incipient pulmonary tuberculosis without softening, 5 of acute miliary tuberculosis and 31 cases chiefly presenting physical signs of chronic bronchitis and emphysema, asthma and bronchiectasis. In 11 of the last group, only Much granules were found. It is implied that the remainder either showed some bacilli or there were reasons why tubercular bacilli and degenerate forms did not appear in the sputum if any were present.

The technic was developed as follows: Modified Ellerman and Erlandsen method: 15-20 C. C. of sputum mixed with an equal quantity of 60% sodium carbonate solution in a stoppered flask and incubated at 37 deg. 24-48 hours; centrifuged; sediment mixed with equal volume of 30% antiformin, allowed to become homogeneous by standing 10-20 minutes; centrifuged half hour; second sediment stained. The stain consisted of 75% Ziehl-Neelsen carbol-fuchsin mixture and 25% of a solution prepared as follows: A saturated solution of methyl violet B. N. in alcohol is diluted 10 times with 2% phenol in water and filtered. The entire solution must be freshly prepared at least every 8 days and must be filtered before using,

or the fuchsin will stain too feebly. (1). This mixed stain is used either hot as ordinarily for detecting tubercle bacilli or preferably at room temperature for 24-48 hours. (2) Lugol solution 5 minutes, heated in flame till steam rises. (3) 5% nitric acid 1 minute. (4) 3% HCl a few seconds. (5) Equal parts acetone and alcohol till no more color is given off. (6) Dry with filter paper. (7) Counterstain with Bismark brown 1 minute. (8) Wash in water. (9) Dry and mount. The Much granules appear black with a pale red halo. To avoid confusion with stain precipitation, cocci and fragments of cell nuclei, depend only on forms in rods or heaps of rods.

The paper contains a report on the addition of various dilutions of tubercle bacilli emulsions to non-tubercular sputum and the possibilities of thus detecting various quantitative infectious conditions. The Much granules are virulent to guinea pigs but may be destroyed or rendered non-virulent by the antiformin treatment, so that inoculations may fail on this account. Fat splitting enzymes derived from lymphocytes are probably responsible for the degeneration of bacilli into Much granules. As stated, cases with Much granules only, do not, unless very rarely, react to any modification of the tuberculin reaction, skin or conjunctival. Only special methods of search are able to detect the Much granule type.

Eradicating Malaria by Way of the Human Host. Japan decided to combat malaria in Formosa, not by filling up ponds, etc., and thus diminishing the anopheles, but by rounding up the human inhabitants and exterminating the protozoa in them. 996,621 persons were examined and 11,896 carriers were found and treated with quinine. In two districts the malaria mortality has been reduced to zero, from rates of 15:1000 and 5:1000 respectively. In another, the reduction has been from 11.60 to 3.39:1000—all in two years. This is an exemplification of the "Man at a Time" doctrine. Essentially the same results have been obtained, according to our Associate Editor, Dr. Pel, in Holland, not from any formal campaign but simply in the course of ordinary intelligent therapeutics. There are many localities in which the filling up of breeding places or the use of kerosene or crude oil, etc., is of prohibitive magnitude or undesirable for economic reasons. The results noted seem to settle the question as to whether, in a practical sense, the primary host is man or the anopheles, and eradication by way of the human host is a simpler and more directly humanitarian method.—*Practical Medicine, Calcutta.*

Positive Method of Preventing and Curing Purulent Infection. Chas. H. Duncan, *Am. Med.*, Oct. 1915. This is an extremely simple method. The patient is made to lick his wounds

or chew gauze saturated in the discharge if the wound cannot be conveniently reached. Specific toxins from the strain of infectious bacteria present, produce a specific protective reaction. (Note: Without intimating a contrary opinion, three suggestions occur to us. (1) It is too early to term this method positive; (2) Due credit should be given to the originators of the method—the lower animals—and we should revise the previous explanation that they survived infected wounds in spite of the addition of more or less virulent microorganisms from the saliva. (3) The regular profession should withdraw its aesthetic objections to mediaeval medicines and to the use of nosodes by homoeopaths and judge past and present questions on the basis of practical value.—Ed.).

Foreign Body Pneumonia. A. Caillé, N. Y., Arch of Paed., Dec. 1915, reports four cases in young children. Spasmodic cough, expectoration of pus in acute lesion, without amphoric respiration or other indication of cavity, should lead to X-ray examination.

Etiology of Scarlet Fever. Felix Schleisser, Jahrbuch fuer Kin derheilkunde, Sept. 1915. 24-hour bouillon cultures of streptococci were blown into the mouth and nose of 27 macacus rhesus monkeys. 12 developed symptoms of scarlatina and were protected against reinfection. The infection was also transferred from monkey to monkey. The filtrate of the culture did not produce infection, so that it is concluded that the streptococcus is the true cause. (Note: It should not be forgotten that the large spirochete of syphilis was not discovered for many years and it is possible that an unfilterable germ may coexist with the streptococci.—Ed.).

Friedlander's Pneumonia With Recovery. C. H. Dunn and J. Hammond, Interstate Med. Jour., Nov. 1915, report a case in a male aged 14½ months. Clinically, the case was one of left lower lobe pneumonia, with crisis and reinfection located in the left upper lobe. Puncture showed no pleuritic effusion but, the needle entering the lung brought away a small amount of fibrinous exudate from which the bacillus mucosus capsulatus was cultivated. This case is said to be the only one reported in an infant and the only case to recover.

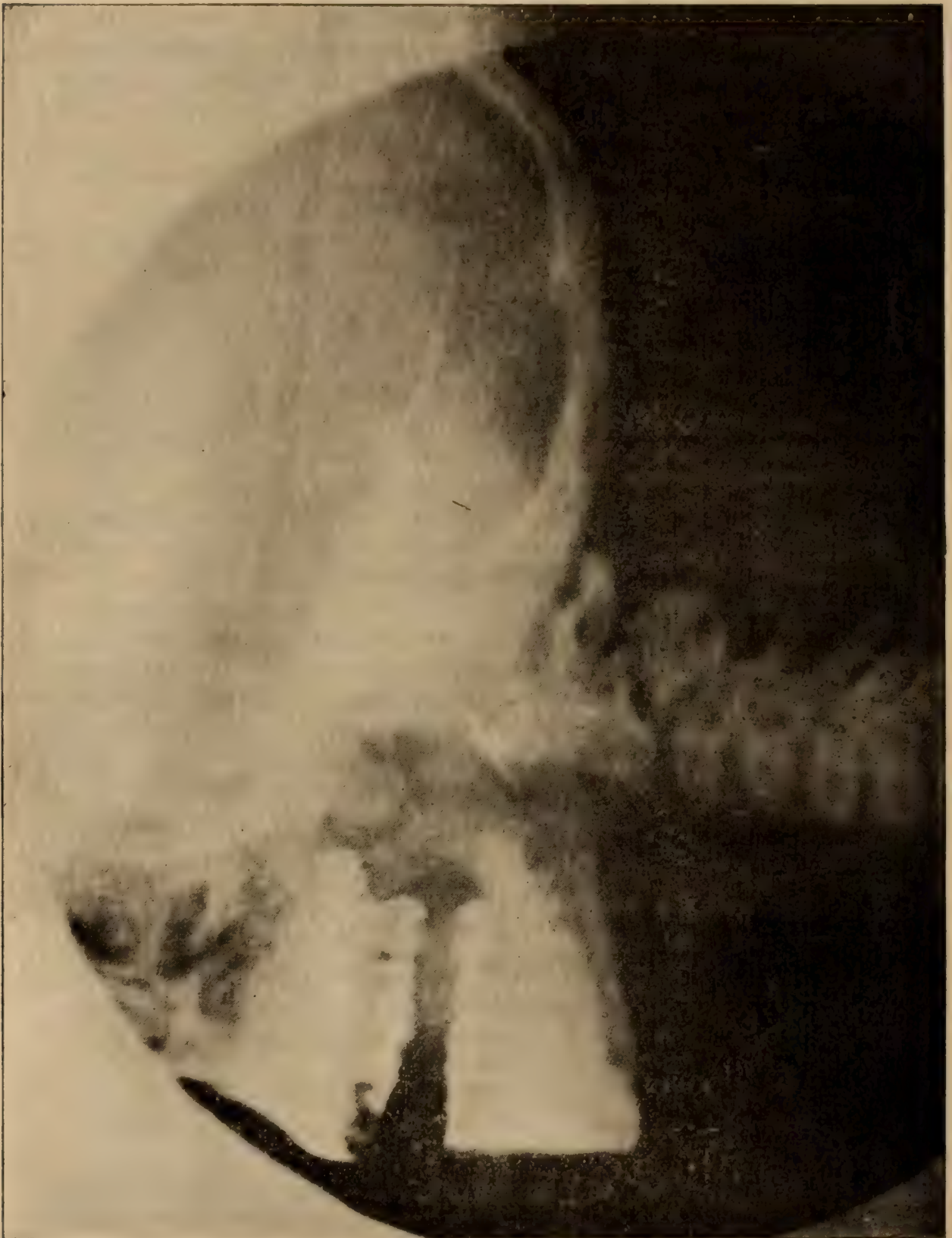
Gastro-Enterostomy and Pyloroplasty. J. M. T. Finney and Julius Friedenwald, Baltimore. 100 cases of each were studied. 67 of the former and 64 of the latter were operated on for obstruction, 44 and 51 respectively following gastric ulcer, 14 and 7 following duodenal ulcer, 9 and 6 following adhesions. There were 7 immediate deaths in the gastro-enterostomy

cases, 5 in pyloroplasty cases. Immediately satisfactory results were noted in 82% of gastrostomies, 90% in pyloroplasties. Cases followed for two years reduced these percentages to 77.2 and 88.6 respectively. Secondary operations were required in 4 of each series. Hence they conclude that pyloroplasty is the operation to be favored, unless for special reasons, as inability to mobilize the duodenum on account of dense adhesions, thickening and infiltration about an ulcer. Excision of ulcers is often possible in pyloroplasty.

Study of Kroenig's Isthmus in Pulmonary Tuberculosis. W. C. Klotz, Los Angeles, Boston M. & S. Jour., Dec. 9, 1915. Allusion is made to Fetterolf and Norris's investigations of frozen cadavers, showing that the right apex is regularly less developed than the left, without regard to right-handedness, and undoubtedly due to encroachment of the large blood vessels of the neck and the position of the trachea. Klotz first determines the area of transmitted pulmonary resonance, as described by Kroenig, marking with dermatograph from the clavicle in front to the spine of the scapula. These are transcribed to case charts and measurements made. If the pulmonary resonance does not reach the upper margin of the trapezius, Kronig's isthmus is designated as zero. 2.5 and 5 c. m., 4 and 7 c. m.; 0 and 5 c. m. are mentioned as actual findings. He tabulates his findings as follows: Right sided lesions, 44, right isthmus narrower in 43, left side narrower in 1. Left sided lesions, 18, right isthmus narrower in 14, left in 4. Bilateral lesions 67, right isthmus narrower in 66, left in 1. In 21 normal controls, the right isthmus was narrower in 18, the left in 1, both the same in 2. (Note: As we understand the matter, the word isthmus is not appropriate. The normal differences between the two pulmonary apexes have been well understood for many years, both anatomically and as regards physical signs and the discounting of this difference in pulmonary tuberculosis and other lesions has also been long taught. Even the mapping out of the apexes, by palpatory thrill, breath and voice signs, ordinary and auscultatory percussion has been practiced by many physicians.—Ed.).

Non-Fatal Fracture of Axis. F. W. O'Brien, Boston, Boston M. & S. Jour., Jan. 20, 1916. (Cut by courtesy of Editor). Corner, Annals of Surg., 1907, collected 8 fatal cases in 6 of which the odontoid was broken, and 10 non-fatal cases in only one of which the odontoid was broken. Mixter and Osgood, Am. Jour. Orthopaedics, Feb. 1910, review the literature of traumatic lesions of the upper two cervical vertebrae, call special attention to the abundance of space about the cord in this region, explain on this basis, the lack of symptoms in

non-fatal cases, and emphasize the marked tendency to death when the odontoid is broken. (See also abstract of report of dislocation of atlas, with illustrations, page 390-391, of our



Feb. issue). O'Brien's case was that of a boy aged 7, who had fallen from a tree on the back of his head five days before he was consulted. The complaint was of inability to turn the

head without pain, and the child supported the ramus of the jaw with his hand. Otherwise there were practically no symptoms, none at all referable to cord paralysis. There was complete fracture of laminae of axis as shown. Dr. G. A. Moore applied an orthopaedic support. This was removed after five weeks, the second radiogram showing excellent union, in fact the fracture line was scarcely visible.

New Ointment Base. 40 grams of petrolatum are mixed with 20 grams of powdered tragacanth, previously triturated with 30 grams of alcohol. 600 grams of milk whey, with whatever medicament may be desired, are added warm, little by little, with constant trituration. The whey is said to aid absorption. *Chemiker Zeitung*.

Reappearance of Menstruation After Parturition. Hugo Ehrenfest, St. Louis, quoted in *Old Dominion Jour. of Med. and Surg.*, Dec., from observation of 309 births among 209 women, concludes that menstruation recurs within 12 weeks in 50% of cases and before lactation is completed in over 80%. Among primiparae, the percentage is still greater.

Physical Basis for Juvenile Delinquency. John A. Colliver, Los Angeles, *Jour. of Sociologic Med.*, Dec. 1915. From probation court experience, the statement is made that 50% of juvenile cases are simply extensions of the normal impulse to play. It is also pointed out that a large number of violations of law would not have been so when we were boys—trespass, for example. This, of course, applies to grown persons also. The relief of criminal tendencies by removal of adenoids, circumcisions, attention to toxic and debilitated states is reported.

Pseudonyms of Early Tuberculosis. F. H. Smith, Abingdon, Va., *Old Dominion Jour. of Med. & Surg.*, Nov. 1915, 157 cases, 7 of which were probably not tuberculous. Of the 150, 18 were non-pulmonary. The 132 cases of pulmonary tuberculosis remaining had been diagnosed previously as follows: bronchial or catarrhal trouble, 49; stomach trouble 29; weakness, nervousness, etc., 35; indigestion and nervousness in 6; headache or backache or both in 9; miscellaneous diagnoses in 4.

Lack of Recto-Vaginal Septum. Frank E. Fox, Fulton, N. Y., *Int. Jour. of Surg.*, Dec. reports a case due to a tear during delivery, the obstetrician mistaking a breech for a face presentation. When seen, the patient was 18 years old, otherwise healthy and well developed. The uterus, which was large, boggy, with cervix raw from continued contact with faeces,

was first fixed ventrally. At this time a long chronically inflamed appendix and a cystic right ovary were removed. A plastic operation was successful, even in restoring sphincteric function.

Multiple Congenital Osteochondromata. Carman and Fisher, *Ann. of Surg.*, Feb. 1915, report a case in a white man aged 30. Increase in size had been noted since 22. Bence-Jones body (albumose?) absent from urine, repeatedly. X-rays apparently show cystic nature of all tumors.

Surgical Radioscopy Under Red Light. J. Bergonie, *Arch. d'Elect. Med.*, Dec. Operations requiring localization by X-rays require either that the surgeon shall work in the dark or be guided by an observer with a fluoroscope who cannot see the field of operation, or that the work shall proceed from recollections of previous X-ray examinations, or shall be subject to the delay of adjustment of the eyes to light and dark, for alternate surgical manoeuvres and fluoroscopy. For three months, operations requiring X-ray guidance have been performed in a room lighted with 20 25-candle power bulbs in the ceiling, above a double thickness of commercial ruby red glass. The light is sufficient, there being no shadows and on account of the contrast between the red rays and the green and yellow rays of the X-ray tube, fluoroscopy, by means of a screen protected by sterile tissue, can be resorted to without delay.

Localization of Projectiles by Perspective Apparatus, Electrovibrators, Magnets, Etc. The Archives of Medical Electricity for several months, has devoted much space to various stereoscopic devices, finders of different types, including sextants, in accordance with general principles of perspective in connection with X-rays and to the other means mentioned. These journals may be consulted at the Grosvenor Library, Buffalo, our exchange file being sent there after review.

Amadou as a Local Haemostatic in Military Surgery. Henry Reynes *Le Progres Med.*, Nov. 1915. Amadou is translated as German tinder, spunk, touch wood and amadow. It is the polyporus formentarius, a fungus of oaks and beeches, long used as a vulnerary and, impregnated with nitre, for the old moxas. Slices 8-12 c.m. long and about 2 transversely, are cut from the middle portion of the fungus, soaked and beaten until they become supple. Its haemostatic action may be reinforced by absorption of ferric chlorid or, to prevent irritation, by treatment with ferric chlorid afterward neutralized by soda solution. The author has employed it, especially for bone

haemorrhage, in its ordinary form, sterilized with instruments at 130-140 C. dry heat. It soaks up blood, as well as preventing haemorrhage, does not adhere and may be removed after 1-2 days.

Differentiation of Typhoid and Para-Typhoid Bacilli. Pierre Paul Levy and Pasteur Vallery-Radot, *Presse Med.*, Oct. 25, 1915. The isolated germs are transferred to gelyo-glucoplomb (which we cannot translate so as to give an accurate formula for the medium) and grown for 24 hours. Absence of fragmentation, with or without brown color, indicates the Eberth bacillus; Fragmentation without browning paratyphoid A; Fragmentation with browning, Paratyphoid B. The statements have been verified by agglutination tests with corresponding specific serum.

Contact Malaria. Rist and Rolland, *Presse Med.*, Oct. 1915, report a case in an Alpine Chassur of Savoy who had never been out of the country. He had been frequently stationed near African troops who furnished numerous cases. Without questioning the origin of the plasmodium, this case does not warrant the term "autochthonous" which the author employs in the title nor "contact" which he employs in the text, unless conveyance by anopheles or in some other analogous manner is eliminated.

Revelation of Osseous Syphilis Following Gun Shot Wounds. H. Toussaint, *Soc. de Chir.*, 1915, page 477 notes tardy healing due to syphilitic lesions pre-existing or determined by the local injury.

Mycosis in Wounds. E. Rouyer and J. Pellissier, *Acad. de Med.*, 1915, page 307, have isolated by cultures on sterile carrots, white tufts, identified as *saccharomyces tumifaciens*. Cospora has also been found. Iodine, peroxid of hydrogen, are contraindicated. Copper sulphate is advised.

Typhoid Among the Vaccinated. Andre Tournade, *Presse Med.*, Nov. 25, 1915, reports 142 cases among soldiers. The course was usually mild, the mortality 7% as compared with 14% among those not vaccinated. There were no deaths among those who had received 4 inoculations. (Note: Nevertheless, this report and the following show that anti-typhoid vaccination is by no means the "humanly speaking" perfect protection which has been claimed by enthusiasts.)

L. Rimbaud, *Presse Med.*, Nov. 11, 1915, made 656 blood cultures between Dec. 15, 1914 and April 30, 1915. 339 (51.6%) were positive. Of the 339 positive cases, 164 were shown to

be true typhoid, 121 paratyphoid A, 54 paratyphoid B. Among 434 subjects who had received 1-4 antityphoid inoculations, 1 month to over 2 years previously, 203 blood cultures (46.7%) were positive, true typhoid being found in 51, paratyphoid A in 106, paratyphoid B in 46. Of the 51 cases of typhoid, 4 had received one injection; 20 2; 17, 3; 10, 4. He therefore urges 4 injections as a routine.

Marcel Labbe, *Le Progres Med.*, Dec. 1915, reports 137 cases of typhoid and paratyphoid among those vaccinated, and checked by blood cultures, sero-diagnosis and cultures from faeces and bile. 1-injection cases showed 50% each of typhoid and paratyphoid B; 2-injection cases, 9.5% typhoid, 90.5% paratyphoid B; 3-injection cases, 8.5% typhoid, 91.5% paratyphoid A. Among the unvaccinated, 87.8% of the fevers were typhoid, 10.9% paratyphoid B, 1.1% paratyphoid A. The mortality of typhoid was: among non-vaccinated 21.4%, among 1-injection vaccinated 12.5%, among those injected twice or more, 2.4%.

Leon Bernard, *Le Progres Med.*, Nov. 1915, states the mortality of typhoid among the non-vaccinated to be 17.2%, among the vaccinated 5.6%. In fact the latter mortality is entirely due to paratyphoid. Hence he urges vaccination with triple vaccine.

Am. Coyon and Lucien Rivet (*ibid*) confirm the general conception of the relative benignity of paratyphoid infections, though recognizing their menace against military efficiency. As treatment, they recommend ice to the abdomen, adrenalin 30 drops daily, sulphur 1.20 t.i.d., daily intestinal lavage with 500 C.C. of water (boiled) plus 20 C.C. Labarraque solution. In 9 cases, they used colloid gold intravenously, with good results.

Petges, Dumoyra and Peyri, *Jour. de Med. de Bordeaux*, Nov. 1915, report 330 cases of typhoid, well marked clinically but apparently not definitely differentiated from paratyphoid. 278 cases were studied in detail, the mortality being 14.39%. 38 cases occurred among the vaccinated, 9 having had 1 injection; 17, 2; 7, 3; 5, 4 injections. 4 deaths occurred, 2 having had 2 injections, 1, 4 injections. The mortality was over 15% in the non-vaccinated, a trifle less than 8% in the vaccinated.

Possibility of Establishing an Early Diagnosis in Cerebro-Spinal Meningitis. *Gaceta Medica de Costa Rica*, Aug. 15, 1915. Dr. J. Aguilar Jordán urges that more attention should be devoted to this subject. He divides the morbid processes into three periods:—

1. Catarrhal;
2. Septicemic;
3. Meningeal.

In the first stage there are: coryza, redness of the palate, with a fine punctuate eruption of a brighter hue, and occasionally vesicles. The pharynx is also erythematous; the voice is changed; there is hoarseness and cough. Conjunctivitis and herpes labialis present themselves. Fever is present and the reflexes are exaggerated. In the second stage the diplococcus is found in the blood and the urine; very abundantly in the latter according to Thomas and Fleming. Also a few meningococci, usually dead, are found in the cerebro-spinal fluid and much albumen. In suspected cases, the examination of the naso-pharyngeal secretions, the blood and the urine should be instituted to rule out grippe. He recommends the vaccine of Lundie in the first and second periods, and states that notable results ensue from the very first injection. Disinfection of the naso-pharyngeal region and the urine, with the complete isolation of the patient should be carried out. He lays stress on the fact that the cerebro-spinal symptoms represent the third and last stage of the disease, while but a few years ago these were considered to be the primary manifestations of the affection. To him, the symptoms of the primary stage are as characteristic as those presented by patients in the sleeping stage of trypanosomiasis.

Successful Post Mortem Caesarian Section. J. F. Barnhill reports in the Ind. Med. Jour., Dec. 1915, a case seen in consultation with Dr. W. G. Kelly and operated on by Dr. Hatfield. The mother, aged 36, was 7-months pregnant with her fourth child, dying of cerebro-spinal meningitis secondary to aural infection, pneumococcic and of only two days' duration. Section was performed 5 minutes after death, a male child being delivered alive and surviving at least 24 days; to the date of the report. Quotation is also made from a report by A. E. Mack of Omaha in the J. A. M. A., Aug. 28, 1915. The mother was 36, within a week of full term with her fourth child. She died suddenly of what was determined at necropsy to be pulmonary embolism. The child was apparently dead when delivered shortly after the mother's death, artificial respiration and alternate applications of hot and cold water were unsuccessful, but resuscitation succeeded after injection of epinephrin into the stump of the cord. The child was alive and healthy 7 months after delivery.

Typhoid Fever in Breast-Fed Infants. Policlinica, Valencia, October 1915. Dr. J. Aguilar Jordán reports two cases. The first a child of 14 months afflicted with noma, pale and ill-nourished. The tongue presented no characteristic features. Abdomen flaccid, spleen enormously enlarged, liver enlarged.

Diarrhoea present with 4-6 green stools daily, and an abundance of mucus. Slight bronchitis, pulse 130, fever intermittent. A diagnosis of malaria was made and quinine given hypodermatically with no results. A splenic puncture was then made, thinking the case was one of Kala-Azar, and the typhoid bacillus was isolated. The second case, 9 months old, had a history of diarrhoea for 15 days. Prostration profound, stupor present and slight symptoms of meningitis. Abdomen moderately tympanitic but no enlargement of liver or spleen. The illness set in with high fever, chill, sweating and the rigor subsided. This repeated itself for several days, then the fever changed from intermittent to remittent. No plasmodia were found but the blood responded strongly to the Widal test. Intestinal hemorrhages are rare in these cases. He calls attention to the fact that breast-fed children are often fed cow's milk, etc., and thus the infection may occur. He does not believe that mother's milk carries the infection, but realizes that typhoid carries may be responsible for some cases. For obvious reasons he considers it prudent to remove the child from the mother or wet nurse should the latter be proved to be carriers of the bacilli.

Intestinal Syphilis. Revista De La Asociación Médica Argentina, January, February and March, 1915. Drs. Mariano R. Castex and Nicolás Romano report a case. The patient denied venereal disease. He had diarrhoea, 8-10 stools a day, abundant and filled with mucus, pus and blood. He complained of pain and tenderness in the left iliac region. There existed a bilateral optic neuritis. The proctosigmoidoscope revealed an intense hyperemia of the rectum and sigmoid with numerous ulcers, some with a hemorrhagic base and others necrotic. Lavage with nitrate of silver solution for 25 days had no effect. They eliminated dysentery, gonorrhoea, carcinoma, tuberculosis, and ulcerative colitis, and instituted anti-syphilitic treatment:—iodide of potassium and intravenous injections of the cyanide of mercury. Three intravenous injections of salvarsan were given. A cure resulted. A Wassermann test after the anti-syphilitic treatment resulted negatively. These cases are rare and hard to diagnose clinically. They consider that cases are more frequent in children than in adults. Any part of the intestine may be affected but the large gut is the favorite site. Occlusion of the gut may occur from cicatricial contraction. They believe syphilis should be looked for in all rebellious cases of diarrhoea accompanied by mucus and pus. If not interrupted by appropriate treatment, death results. Too often they are diagnosed post-mortem. The prognosis depends on the diagnosis.

Strontium Salicylate is declared, editorially, Jour. A. M. A., Jan. 29, not to be superior to sodium-salicylate and, indeed, to furnish only 4-5 of the salicylic radicle available from the latter. This is in support of an original article by M. A. Blankenhorn of Chicago in the same issue. A table is presented, mainly of rheumatic and acute endocarditic cases. (Note: While a clinical study of this nature is of great value, it does not settle the question. Strontium salicylate has, in several cases in our experience, been followed with a marked and prolonged diminution of sugar, even on a fair allowance of carbohydrates, and it has seemed that strontium bromid has had a more lasting sedative action than sodium bromid. Clinical tests are quite apt to be misleading on either side of a question. Our impression as to the value of strontium, in and of itself, may be mistaken, but it is premature to dismiss this drug without further investigation, especially as the authority for its use is considerable. As to the class of cases with which Blankenhorn deals, we are quite ready to admit that the essential therapeutic radicle in rheumatic affections is the salicylic and that if any advantage rests with any particular metallic base, it is with those that are markedly alkaline, although superacidity in the direct sense is not so marked and so general in what we term rheumatism, as is often imagined.—Ed.).

Oculo-Cardiac Reflex. Levine, Arch. of Int. Med., May 1915, states that the slowing of a pulse from vagus inhibition, is generally absent in tabes, present in pneumonia, syphilis and chronic valvular disease. Right ocular pressure has a slightly greater effect than left. Left sided pressure has more effect on the conducting mechanism of the heart, may lengthen the time, cause partial heart block and possibly result in automatic ventricular rhythm. The phenomenon differs in different individuals and in the same individual at different times. (Note: It has seemed to the editor that vagus reflex, that is to say a slowing of the pulse by 8-10 beats a minute, was rather characteristic of what may be termed sthenic conditions, e.g. hyperchlorhydria while in asthenic conditions, there is no change or a variation of only two or three beats which can scarcely be considered significant. The opposite condition, increase in pulse rate by preponderance of the sympathetic, has not been personally observed. Some observations have been made which seem to indicate that a decided retardation of the pulse predicts a rapid 'taking hold' by digitalis. For instance, pressure on the eye reduced the pulse in a case of hyperchlorhydria from 120 to 90. After digitalis for three days, the pulse was reduced to 70, being further reduced to 60 by ocular pressure. On the other hand, in an old man with pneumonia seen

at a hospital, ocular pressure had no decided effect on the pulse. 5 drop doses of fluid extract, 4 times daily were maintained for ten days before the pulse was reduced from 140-120 to about 80. We should be pleased to receive reports on this suggestion. Ed.)

Dermoid Cyst Free in Abdomen During Pregnancy. Jasper Halpenny, Winnipeg, Can. Pract & Rev., Nov. 1915, reports the case of a woman aged about 35. In Nov. 1913, she had a 3-months miscarriage. Mch. 28, 1915, when about 4½ months pregnant, while working about the house, she felt a sudden sharp pain in the right side and felt faint and nauseated. 3 days later she was admitted to the hospital with a temperature of 100.8 and pulse of 72. White cells 12000. Operation was performed with the tentative diagnosis of acute inflammation of the appendix. A free, partly gangrenous mass, 2-3 the size of a fist, presented. This proved to a dermoid cyst whose pedicle had become twisted off, leaving practically no shreds at the stump. A chronically adherent appendix was removed but no exploration was made and the wound was closed without drainage. Uneventful recovery.

Intestinal Obstruction With Abnormal Development of Colon. W. J. Barclay, New Zealand Med. Jour., Dec., 1915, reports a case in a man aged 22, 3 days constipation, pulse 84, temperature 98, swelling in region of caecum, alternately hardening and relaxing. Vomiting. The caecum was exposed, evacuated through an incision and closed, with double row of sutures. From the still distended caecum, the colon passed at once to the left, behind the small intestines, being obstructed by fibrous tissue continuous with the root of the mesentery, 4 inches above the caecum. Some bands were dissected off but it was impossible to free the colon so that the contents could be easily pressed past the obstruction. The healthy appendix was therefore stitched to the abdominal wall to afford a fistula. Death followed in 41 hours from peritonitis, though there was temporary relief. Post mortem, it was found that the caecum and small intestine had a common mesentery, the great omentum hanging free from the stomach and without attachment to the colon at any place.

Pyorrhoea Alveolaris. The U. S. Public Health Service reports an examination of 190 cases. 187 showed the endamoeba. 87 of these were treated with emetin but none lost it permanently. Improvement of the condition of the teeth and gums was noted in 22. 2 remained stationary and 1 became worse. While emetin is an amoebacide, it will not alone cure pyorrhoea.

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ORIGINAL ARTICLES

The right is reserved to decline papers not dealing with practical medical and surgical subjects, and such as might offend or fail to interest readers. Contributors are solely responsible for opinions, methods of expression and revision of proof.

Trauma as a Factor in Appendicitis.

By LAWRENCE GEO. HANLEY, M.D., LL.D., Buffalo, N. Y.

"There is one quality the possession of which is the supreme need of the physician, without which he is as unfit as a tone-deaf musician, or a color-blind painter; that is the faculty of exact observation."—Minot, late professor of Harvard.

Appendicitis is a common malady and people continue to die from it, chiefly because they insist upon postponing an operation, although there is no doubt that operation is the only safe treatment. With prompt operation the mortality is insignificant, but without it the death rate may perhaps be as high as 20 per cent.

Deaths from appendicitis are decreasing practically every year because intelligent people are learning that prompt surgical aid is the only rational procedure, and that what causes death even in neglected cases is almost invariably the appendicitis, not the operation.

One reason, however, why some patients oppose surgical measures is the inability of the attending physician, or surgeon, as a rule, to specify the cause of the disorder, and this defect on our part is a direct result of the absence of the faculty of exact observation among medical men as a body—using the words "exact observation" in their widest sense.

Unless we question our patients who suffer from appendicitis and, in addition, study the history of each case, the etiology of the malady would remain obscure as in very many instances today.

It is my opinion that trauma plays a far greater part than is generally supposed, and in procuring the history—trauma has been given very little attention—satisfied that it is a case of appendicitis, operate, exit appendix.

Injury to the right iliac region certainly lessens the tone of the structures in that area, the same as in any other part and when lowered beyond a certain grade a locus minoris resistentiae is formed, and the blood that bathes that section carries with it bacteria or else gives the bacteria already existing there a chance to become active. The existence of the effects of some previous inflammatory condition, or the presence of a coprolith, may be tardily or suddenly set into inflammatory action by blows, kicks, straining, lifting, jumping, or other traumatic causes.

It is not my intention to enter too deeply in detail regarding the pathology, but only to report a few cases from trauma that have come under my notice, trusting that more light may be thrown upon this important phase of the subject.

Would we be justified in saying that jumping from a street car, straining, lifting, bicycle riding—not to mention a direct blow over the region of the appendix—was the prime means of producing disease in that organ? Yet there are cases as such reported by men who are masters in their line. One operator says that trauma is a direct factor in the causation of some cases more often than has been supposed, and reports some fifty cases collected by him. In The Medical Record of June 2, 1906, there is a report of three cases due to trauma.

Another operator remarks: "In a careful research of histories of 500 cases of acute appendicitis there was no evidence of traumatism as a causative factor, and in my whole experience I have never encountered an undoubted instance of appendicitis caused by trauma."

John E., age 35, fireman. Family history negative. No history of injury or previous sickness until Jan. 16th, 1911, when he fell from a ladder a distance of fifteen feet. He struck upon his abdomen and, aside from a slight shock, he experienced no great discomfort, and he returned to his work and continued for three days. Four days after the accident he was taken with sharp pains in abdomen, cramps, vomiting, pain localized in region of appendix, board-like belly; temperature 99, pulse 120. Five days after accident temperature 100, pulse 110, increased pain. Removed to Sisters' Hospital. Operation. An appendix four inches long, one-third of an inch in thickness imbedded in a fold of discolored omentum was removed. He made an easy recovery.

Joseph C., age 32. Street car conductor. Operated May 24th, 1914. Was standing near entrance of car when he was

thrown against angle of iron rail, result of a collision. He was hurt in the abdomen. Complained of pain for one week, and was attended by Dr. S. Moore, who called me in consultation eight days after the accident. Temperature 99, pulse 110, nausea, pain over region of appendix. Operation. Appendix was congested, was about three inches long and lying in a bed of omentum, which was also thickened and inflamed. There was also some escaped sanguinous fluid when appendix was delivered. Nothing intervened and patient made good recovery.

J. C., age 29. Clerk. Family history good. Personal history negative as regards sickness and injury, excepting in 1912 when he strained himself playing handball, and since that time he has had pain at frequent intervals in lower right side of abdomen. He was never obliged to leave his work until Feb. 14, 1914, when he was seized with sharp pain over site of appendix, nausea; temperature normal, pulse 108. Operation was recommended and performed. The appendix was imbedded in caecum and covered with omentum, showing the effects of previous inflammatory action. Satisfactory recovery. Has had no return of former symptoms and was away from his duties but four weeks. He dates his trouble from straining himself in 1912. It is my opinion that trauma was the causative factor of his appendicitis.

John B., age 55. Motorman. Nov. 24th, 1905. Family history good. Personal history nothing of importance. While releasing a brake handle struck him in abdomen, causing him great pain, in his own words "it knocked me wind out." Nevertheless this did not prevent him from working for three days. After that time he was confined to the house for one week. He returned to work and continued for two weeks, when he was obliged to discontinue. He finds relief only when lying on his abdomen, or when leaning forward. Pain is centralized over region of appendix. Operation advised and done. There was an adhesion of appendix and mesentery to the abdominal peritoneum. Appendix removed. Made a good recovery and is free from pain and able to return to his regular duties.

Mr. B. Pullman conductor. August 20th, 1909. Nothing in family or personal history of any moment. Was thrown against a seat by a sudden jolting of a car while rounding a curve. Taken to his home in a carriage. Saw him two days after the injury. Nausea, temperature 100, pulse 100. Pain over region of appendix. August 23d, 1909, sent to hospital. Leucocytosis 17000. Aug. 24th operated. A dead appendix, containing a coprolith. Made a good recovery. He informed me that prior to his injury he was perfectly well. How long that coprolith was in his appendix I know

not, but it is my opinion that the injury set up the inflammatory action that necessitated operative interference.

The following cases were reported by me in the Buffalo Medical Journal January, 1906:

Charles Z., age 33. Fireman. Has always been well until three days before operation, date of which was Oct. 13th, 1905. He thinks he might have hurt himself sliding down a pole in firehouse. Pulse 90, temperature 101. Leucocytosis 16000. There is pain upon the slightest pressure and spasm of muscle of right side extending from Poupart ligament to ninth intercostal space. On opening abdomen a piece of omentum 6x6x1 inches thick adherent to peritoneum, and ilium and caecum in a strangulated semi-gangrenous condition was found. The appendix lay posterior to this mass and was greatly inflamed from contact with diseased omentum. The serosa was very much engorged but the mucosa seemed normal. The peritoneum, where the omentum was attached, and the serous surface of ilium, bled freely when separated. Patient made a good recovery. Left hospital on twenty-first day.

John S., age 43. Family history good. Personal history good until one month ago when he strained himself lifting. The pain he experienced at that time did not hinder him from occupying his occupation as a teamster. On Nov. 15th, 1905, came under my care. Examination shows localized spasm of muscles extending from Pouparts ligament to median line and ninth intercostal space. Painful upon pressure and so severe that patient is unable to stand, and only finds relief when lying upon his back with lets flexed. Pulse 98, temperature 99. Leucocyte count 8,000. On opening abdomen a piece of omentum 4x3 inches was found adhered to caecum and peritoneum strangulated and semi-gangrenous. The appendix and mass were removed. Patient's condition for first four days was very satisfactory, but on the fifth day he devoloped a delirium the nature of a nimia bibens—though his history showed that he was not in the habit of using intoxicants in excess, and in the absence of the nurse jumped from the third story window, breaking glass, and fell a distance of forty feet. Though he broke the glass he did not break any bones, and from a few cuts on his face and bruises on his body he made a good recovery. Wound and abdomen healed and he left hospital in 20 days.

That trauma is a factor in producing appendicitis is my opinion. That it is doubted by some is also true, and that it is of little importance as regards the treatment is correct, but from a medico-legal standpoint demands great consideration.

"To know a subject thoroughly has never been given to erring, sinful man," but it is our duty to try and acquire that knowledge, and I believe that if we question our patient's suffering from appendicitis we will find that trauma is a causative factor more often than we thought possible.

428 Porter Avenue.

Early Recognition of Cancer of Stomach. Julius Friedenwalk, Baltimore, Md. Med. Jour., Feb. The ordinary symptoms are mentioned, with percentage of occurrence. These, of course, are well known and only of suggestive value. Haematemesis occurred in 22.7% but early enough for diagnosis to be practical, in only about 4%. In nearly 90% of the cases in which haematemesis occurred at all, it was repeated. Melaena occurred in 18.9% but early in only about 3%. Occult blood occurred in 92.5%, was usually constant if once observed, and usually occurred early. (Note: In other words, if blood is to be sought at all, it should be looked for where it will occur without abnormal reflexes, i.e. in the stools, and it should be looked for carefully, i.e. by chemic test and not by naked-eye observation. Ed.) Dysphagia occurred in 78% of involvements of the cardia and occurred early. (Yet we have recently seen a case of marked obstruction to the tube, verified by operation, with no subjective complaint of dysphagia. Ed.) Palpable tumor was a late sign. Gastric dilatation due to pyloric stenosis occurred in 47%, in fact in 52% of early cases. X-ray findings are stated to be valuable, without statistics. Filling defect is especially emphasized. Absence of HCl occurred in 89%, in 76% as an early sign. Oppler-Boas bacilli were found in 79%, early in 74%, of course only when lactic acid was present. (Note: The mere absence of HCl is not of much significance because it is likely to be noted in non-malignant conditions, especially in the age period at which cancer is most prevalent. Ed.) The Wolff-Junghans test occurred in 84.6% (44 of 52 cases) and early in 79.5% (11 of 14 cases) and is regarded as very valuable. The Abderhalden and Kelling serum tests were not found to be specific, variations occurring in both directions.

Brain Lipoid as a Haemostatic. Arthur D. Hirschfelder, Lancet, Sept. 4, 1915. Ox brain is first washed with alcohol. The residue is extracted with ether, filtered and evaporated. A yellow residue is obtained consisting mainly of kephalin, which produces haemostatsis on being smeared over a bleeding surface. On account of its cheapness, it is especially applicable to military surgery.

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Conservation of Philanthropic Energy

This subject may be considered as bearing on Preparedness and Efficiency, either from a peace or war standpoint. Editorial service has impressed on us a fact vaguely realized before but not as to its magnitude. Broadly speaking, there is a private organization covering every phase of educational hygienic, sanitary, sociologic and political interest. Often there is a duplication of rival organizations, or an unnecessary overlapping of general and local organizations, usually a duplication of what may be termed official organization by more or less auxiliary or interfering organizations of informal nature. For instance, if the decision of an issue properly rests with duly elected and appointed officers of the national, state or local government, there is an organization to mold public opinion, sometimes rival organizations which may hold decided differences of opinion or which may merely be rivals for the honor of securing the same result. If a matter is distinctly one with which the medical profession is concerned and qualified to deal through its various organizations—which themselves duplicate one another's activities to a considerable degree—there is a joint medical and lay organization and sometimes several, to secure public information. Sometimes the work of educating the laity is well performed, sometimes it results in exaggerated conceptions and sometimes, from the technical nature of the fundamental sciences involved, the result is inevitably a peculiar distortion of the truth. Sometimes, different organizations, of large membership, develop the same complicated and expensive machinery

for securing single objects which could not only be more economically accomplished if one machinery did the whole work but which would secure a fuller conception by presenting a general subject—health, for example—as a unit instead of in fragmentary form. Sometimes, the funds raised seem to be economically expended, sometimes it seems to an impartial critic that they are largely wasted on unnecessary clerical and executive expenses, and on postage and printing to disseminate the same trite information or uninteresting details, over and over again.

All these unofficial activities mean a large expense of money and effort. There are no statistics as to the amount of this tax. Some time ago, we collected requests for contributions, mostly on the basis of membership and found that, if responded to, they would just about consume our entire income.

The Street Walker

We resolved, on entering upon the editorial management of the BUFFALO MEDICAL JOURNAL, to discuss sexual problems as little as possible. Unfortunately, such problems always are of vital interest and there seems to be an unprecedented amount of attention paid to them at present by lay societies and periodicals. Hence, we can not well avoid mentioning them.

In a recent visit to New York, we attended a session of the women's night court, which seems to specialize in street walking cases. Special detectives, young men in plain clothes, appeared in succession with their catches, gave the same testimony of being on such and such a street, seeing the girl walk so many feet north or south, accost one man after another and then of making the arrest. The girls usually waived subsequent trial with an attorney, sometimes made hysteric denials, sometimes an admission, sometimes lied about previous convictions, were sentenced to penal or reformatory institutions. The matron, a sweet-faced, white-haired woman, stated that reform was seldom accomplished, that the work was mainly one of "street cleaning." From other sources, accounts were received of painful errors in the way of arrests of perfectly innocent women and girls, talking with friends and relatives, or asking directions from strangers. On the streets, in the evenings, we could see no obvious diminution of the trade by this system of street cleaning, in fact we were accosted while waiting in front of a store within which most of our near female relatives were making purchases.

That the street walker is an evil, that she is a very direct etiologic factor in regard to disease, goes without saying. But she is not primarily responsible for her own trade; she is merely the supply of an inexorable demand to which the very agents of her persecution very likely contribute. She is alluded to by Homer and by Solomon and she was an ancient institution even in their time. We have no scheme for either her suppression or her salvation. We may shock the pious by confessing not so much horror as pity for this poor, bedraggled street sparrow seeking a precarious living from social excrement. Somehow, it does not seem quite fair, in addition to social ostracism, to make her the victim of police persecution of special severity, more particularly because no such system can eradicate the cause of which she is the effect. We rather incline to the policy of getting after the "man higher up." Certainly, if she is either to be reformed or controlled, it must be sympathetic assistance rather than oppression.

Economics of Contract Practice

The practical evils of contract practice have been too thoroughly discussed to need reiteration. Yet, viewing the matter broadly, there is no ethical nor economic reason against a contract by an individual, family or society, to secure medical care as needed, for a fixed premium. Every argument that applies to the advisability of fire, life, liability or other insurance, applies to insurance of proper medical care, without pauperism or an overwhelming expense.

The real reasons why Contract Practice has been so violently condemned by the medical profession generally are that, in the first place, it has not usually selected the attendant with due regard to personal choice and natural affiliation of the person or family seeking treatment, nor with due regard to the ordinary properties governing professional competition; and that in the second place, the premium has been inadequate. This latter is the essential weakness of Contract Practice. It is one of the main factors in excluding from competition, a large number of the profession. It requires that services only nominally paid for shall be rendered to those who ought not to seek charity and pauperism is thinly disguised under the veil of a business contract. It tempts to inadequate and unskilled service and to neglect. Many persons entitled to contract attendance realize this fact so well that they do not attempt to avail themselves of the benefits for which they pay.

A study of College Health Activities in the Dec. 1915 issue

of the Journal of the Iowa State Medical Society, throws some light on what the proper premium for contract attendance should be. The following annual assessments are made for physical examination, diagnosis of existing abnormal conditions, and general supervision of health but not including treatment of actual sickness nor accident. The fees are supposed to be based on actual expense of maintenance: Princeton \$7, Harvard \$4, Cornell \$6, Stanford \$4, Wellesley \$5, California \$6, Michigan \$4, Texas \$5, Iowa \$4, Kansas \$2. When we consider that the age and, in the majority of cases, the sex and social condition of the beneficiaries determine a vulnerability considerably less than the average for all ages and both sexes, and that the expense of actual disease and injury is not included, it is obvious that Contract Practice cannot make a plea for respectful consideration until its premiums are multiplied ten times at least.

“It Would Cut Into a Half Day”

A while ago, a patient came with a history of obscure disease, dating back several years. After the preliminary examination, she objected to coming in office hours, for the above reason, although she was not a housewife and was, at the time, not working. A little further experience showed that her conception of medical attention was to run in at odd times, as convenient—to herself—to postpone or neglect appointments as fancy dictated and to observe no regularity of intervals between examinations. In fact, we have not yet succeeded in making a definite diagnosis although we have a fair idea of the reason of the chronicity of her ailment and of the prognosis.

Modern medicine is tending from symptomatic bedside treatment of disabled patients to the thorough analysis of chronic ambulant cases, formerly regarded as incurable even if amenable to relief. The average patient suffers less pain, is in less danger of life than formerly, but the solution of more recondite problems requires greater patience and more diligence on the part of both physician and patient. We must educate the laity to a conception of treatment as a serious piece of work, quite as important ultimately as any other, and requiring the same degree of regularity and promptness. It is worth while “to cut into a half day” for the sake of getting well.

An Unappreciated Cause for the Falling Off of Prescriptions

With all allowance for economic and frictional factors, we think that the Pharmaceutic Profession fails to realize a very

important reason for the diminished volume of prescriptions. The old fashioned four to six ingredient prescription, with its active drug, corrigent, diluent and flavor, is practically obsolete. This is nobody's fault, least of all the druggists. The homoeopaths had a good deal with teaching us to use one drug at a time. Various specialists have shown the superior efficacy of local applications, even pretty deep within the body cavities, instead of relying on the selective action or chance penetration of smaller quantities of much larger, perhaps dangerous aggregate doses. Chemists have given us tasteless substitutes for nauseous drugs, manufacturers have given us various devices for concealing disagreeable tastes, either means being superior to mixing supposedly agreeable with certainly disagreeable flavors.

The "N.F." exists largely for the sake of resisting the current of modern therapy. If a drug deserves formal listing at all, let it be in the U. S. P. A stock list of formulae tends to discourage rational variation of dosage and to weaken the ability to prescribe extemporaneously. It is also an obstacle to the achievement of simple, decimal formulae.

But there is much to be said in favor of the "N.F." and we shall be glad to publish this side in a later issue.

BOOK REVIEWS

Books mentioned may be inspected at and ordered through this office. So far as possible, books received in any month will be reviewed in the issue of the second month following.

Reference Handbook of the Medical Sciences; embracing the entire range of Scientific and Practical Medicine and Allied Sciences. By various writers. Third edition, completely revised and rewritten. Edited by Thomas Lathrop Stedman, A. M., M. D. Complete in eight imperial quarto volumes. Volume VI 967—6 double column pages, illustrated by 489 engravings and 7 full-page plates in black and colors. Wm. Wood & Co., New York.

The expense of this cyclopaedic work exceeds the entire capitalization of many publishing houses. Yet the success of the two earlier editions, justifies so large an investment. The first edition, published 1888, is still valuable for practical reference though, obviously the great advance in many lines of medical science and, indeed, the creation of entirely new lines of thought and action, reduces many articles to a his-

toric use. The present volume extends from Ligation of arteries to Oxyuris. With the work three quarters completed, it is already available for practical reference and the remaining volumes will soon be issued so that those who have delayed subscribing, should do so promptly. While we would not go so far as to say that this work can adequately constitute an entire medical library, it comes close to this standard. A large corps of writers has co-operated in preparing articles, under the general guidance of Dr. Thomas L. Stedman. In each instance, the aim has been to secure a thorough discussion of a subject, omitting guess work and exploded theories, and condensing so far as possible, largely by a system of cross reference which will be expedited by the index. Thus, in the great majority of instances in which information is needed, the happy mean is secured between the use of a brief and incomplete text book and one so extensive as to burden the mind with unnecessary detail.

Trachoma; Its Prevalence, Effects upon Vision, and the Methods of Control and Eradication. Illustrated pamphlet, 40 pages, issued by the National Committee for the Prevention of Blindness, 130 E. 22, N. Y.

Although intended mainly as a means of popular education in regard to this serious and little realized danger, it is valuable to the medical profession, especially those of its members not directly interested in ophthalmology and who have not had experience in immigration inspection and have not studied the insidious progress of this disease in our country.

Obstetrics. A Practical Text Book for Students and Practitioners. By Edwin Bradford Cragin, A. B., A. M., (Hon.) M. D., F. R. C. S.; Professor of Obstetrics and Gynecology, College of Physicians and Surgeons, Columbia University, New York; Attending Obstetrician and Gynecologist to the Sloane Hospital for Women; Consulting Obstetrician to the City Maternity Hospital. Assisted by George H. Ryder, A. B., M. D., Instructor in Gynecology, College of Physicians and Surgeons, Columbia University, New York; Assistant Attending Obstetrician, Sloane Hospital for Women; Associate Surgeon, Woman's Hospital, New York. Octavo, 858 pages, with 499 engravings and 13 plates. Cloth, \$6.00 net.

Anatomy, embryology and physiology are well and thoroughly discussed and the further discussion, scientific and practical of pregnancy, includes about a quarter of the whole work before labor is reached. This is significant, not only

as indicative of modern custom of regarding the pregnant woman as deserving special care, but because it is virtually a prophylaxis of many of the abnormalities later discussed. In fact, the entire work conceives of Obstetrics in a broad spirit and covers every detail of the management of the two lives at stake until they can safely be dismissed from the attendance of the physician in the role of obstetrician.

New York Health Almanac. Health News, the Monthly Bulletin of the N. Y. State Dept. of Health, takes the form of an almanac.

The ordinary tables of sun-rise and sun-set, moon's phases, morning and evening stars, etc., are given. Biographic and historic anniversaries are included, with a marked leaning toward those of medical importance. In place of the advice to take patent medicine which we have come to associate with almanacs, useful hygienic hints are given and even the jokes are represented by some very excellent wit. The Dept. of Health is to be congratulated in this answer to the question "Why should the marking of time and the presentation of astronomic events be relegated to quacks?" This almanac is well worth preservation and we trust that, at any rate after this year, the edition will be large enough so that anyone can secure it free, at a drug store, anywhere in the state. Its publication is a good deal more important in the history of our efficient Dept. of Health than might seem, from off-hand consideration. In fact, with some further development, we consider it the best means of popular education in health matters that has been devised.

The Mulford Laboratories. The H. K. Mulford Co. of Philadelphia, has issued a collection of Lumiere color photographic reproductions (without retouching) showing their laboratories, drug farms, etc., with descriptive text.

This is interesting merely as an example of the beautiful achievements of this comparatively new art, still more so to the medical profession, in putting before them, the elaborate equipment of this progressive firm.

A Practical Treatise on Infant Feeding and Allied Topics. Harry Lowenburg, A. M., M. D., Philadelphia. F. A. Davis Co., Philadelphia. 382 pages, 64 text engravings, 30 original page plates, 11 in color. \$3.00.

About half of the work is devoted to feeding, many of the plates in this section illustrating stools. The "allied topics"

include infantile atrophy, rickets, scurvy, vomiting, constipation, diarrhoea, spasmophilia, exudative diathesis, pyloric obstruction, etc. X-ray plates illustrate the principal mechanic abnormalities. The book is clearly written and the facts logically arranged. The tone of the work is practical throughout, all the more so because based on scientific principles, applied both in diagnosis and in giving a conception of each condition.

Cancer of the Stomach. A Clinical Study of 921 Operatively and Pathologically Demonstrated Cases, by Frank Smithies, M. D., Gastro-enterologist to Augustana Hospital, Chicago. With a Chapter on the Surgical Treatment of Gastric Cancer, by Albert J. Ochsner, M. D., Professor of Clinical Surgery in the University of Illinois. Octavo of 522 pages with 160 illustrations. Philadelphia and London: W. B. Saunders Company, 1916. Cloth, \$5.50 net; Half Morocco, \$7.00 net.

It cannot be too strongly emphasized that this work is mainly a collective clinical study of a large series of cases observed in such a way as to present practically complete information of each one, and that this series represents ten years or more of digestion of personal experience and study of the literature. While by no means an assembly of monographs, many of the items have been worked up in special articles published at various times. Ochsner's chapter on Surgical Treatment is, of course, authoritative and it is followed by a chapter on medical or, rather non-surgical treatment in which nothing that may influence a case favorably is ignored on account of prejudice, however justified. A few minor differences of opinion may be expressed: in titrating for free HCl, the end-point is not a straw yellow but that at which the cerise color disappears and gives place to an orange, the straw yellow including other acid factors, probably due to acid salts. We would go somewhat further than the statement that the alizarin test for combined acidity is of "dubious value" but, so long as it is mentioned at all, it should be stated that the combined acidity is determined by subtraction from the total acidity. The table of incidence according to occupation is interesting but we are not inclined to attach significance to the preponderance of farmers—32.4% and the occurrence of 11.3% more in farm-dwellers otherwise classified,—since 36% of the total population are engaged in agricultural pursuits. The careful, statistic studies of so-called specific reactions are of the utmost value. What impresses us most favorably is that, while the work is reduced to the basis of actual fact, so far as it can be deter-

mined for each detail, it does not upset preconceived ideas based on careful study, the authors are not hobbyists, do not go to extremes, they present their experience and convictions in a judicial spirit, make no plea for novelties and, in general, confirm rather than revolutionize the best opinions of the time.

1916 Catalogue of the Latest Practical, Scientific, Technical and Automobile Books.

Sent free on application to the Norman W. Henley Publishing Co., 132 Nassau St., N. Y.

A Text-Book Upon the Pathogenic Bacteria and Protozoa. For Students of Medicine and Physicians. By Joseph McFarland, M. D., Professor of Pathology and Bacteriology in the Medico-Chirurgical College, Philadelphia. Eighth edition, thoroughly revised. Octavo of 807 pages with 323 illustrations, a number of them in colors. Philadelphia and London: W. B. Saunders Company, 1915. Cloth, \$4.00 net.

It gives us great pleasure to review this scholarly work of a classmate at the University of Pennsylvania. A little less than half of the book is devoted to general considerations of theory and technic though, even here, the practical element appears in the discussion of the preparation of vaccines, the bacteriologic analysis of air, water and foods, the determination of thermic death points and of the value of antiseptics and in the inclusion of the Wassermann test, illustrated in color. The following 40 chapters discuss in detail the diseases in which micro-organisms are known, the number of the latter being considerably greater as, for suppuration, pneumonia, typhoid, etc., various more or less specific or alternate germs are known. Blastomycosis and sporotrichosis are included. The Negri bodies for hydrophobia and the Bordet-Gengou bacillus for whooping cough are tentatively accepted. The discussion of micro-organisms by diseases, rather than by a biologic classification is in a sense, disappointing but it is highly practical, not so much because actual problems in bacteriologic diagnosis and therapy thus present themselves as because the attempt at accurate classification tempts from the field of fact into that of the imagination. A similar disappointment is encountered in the search for a description of the germs of the exanthemata, especially for the elaborate life-cycles of the variola-vaccinia protozoon, for the germ or germs of cancer, etc. In other words, the author has avoided the realm of speculation and contents himself with facts although, in several instances, micro-organisms not absolutely

established as specific causes of disease but supported by good evidence, are considered, the existence of any reasonable doubt being carefully noted. The work is one that, undoubtedly, will receive additions in subsequent editions but there is little or nothing that will need correction. We need not recommend the book to laboratory workers; it is too well established by its reputation maintained and increased through eight editions but we wish that it might be carefully studied by every medical practitioner to afford a conception of the exact status of the science of bacteriology and, particularly, a knowledge of what is firmly established and a realization of what is merely aspiration, speculation or exploded theory.

Urgent Surgery. Felix Lejars, Paris, 3d English impression, translated from the 7th French edition by Wm. S. Dickie, F. R. C. S. and Ernest Ward, M. A., M. D., F. R. C. S. Vol. 2, G.-U. Organs, Rectum and Anus, Strangulated Hernias, Extremities. Wm. Wood & Co. 588 pages, 20 page plates and 1068 illustrations in the text. \$7.

Mr. Dickie having been ordered to active military service, the translation has been continued by Dr. Ward, no break being apparent. Except incidentally, no attempt has been made to include strictly military surgery and, as noted in the title and stated in our previous review of the first volume, the discussion is limited, so far as possible, to strictly emergent operations.

Principles and Practice of Physical Diagnosis. By John C. DaCosta, Jr., M. D., Assistant Professor of Medicine, Jefferson Medical College, Philadelphia. Third edition, thoroughly revised. Octavo of 589 pages with 243 original illustrations. Philadelphia and London: W. B. Saunders Company, 1915. Cloth, \$3.50 net.

What impresses us especially is the attention paid to inspection which is often given scant attention, and the detailed description of physical methods for particular clinical and pathologic conditions, even occasionally checked by post mortem findings. The sphygmograph and electro-cardiograph, fluoroscope and radiograph, tuberculin reaction, etc., come in for consideration but the work is held for the most part to establish limitations of the term physical diagnosis. We appreciate the mention of our studies of auscultatory percussion but think that the tuning fork substitute method should be included in the reference (Transactions of Med. Soc. State of N. Y. 1895). We are especially pleased to note that dis-

tinctions of pitch in percussion and auscultations were first developed by the original editor of this journal, Dr. Austin Flint, in 1852.

Transactions of the 21st Annual Meeting of the American Laryngologic, Rhinologic and Otologic Society, Chicago, June 15-16, 1915. Published for the Society by Paul B. Hoeber, N. Y., Geo. L. Richards, Fall River, Samuel J. Kopetzky, N. Y., and Frank E. Kittredge, publication committee.

In addition to lists of officers, fellows and transactions, a large number of papers on various subjects are included. One of the most generally interesting of these, is the prize essay of Gerhard H. Cocks of N. Y., conducted under the auspices of the N. Y. State Commission on Ventilation: *Experimental Studies on the Effect of Various Atmospheric Conditions upon the Upper Respiratory Tract*. These deal especially with the effects of changes of temperature and humidity. In the majority of instances, it was found that increase of temperature causes increased swelling, moisture and redness (measured chiefly by the turbinates), decrease the reverse, while moist heat increases the former reactions. Bacterial infection cannot entirely explain catarrhal inflammations. The problems are, however, complicated and the paper cannot be briefly abstracted.

Autoplastic Bone Surgery. By Charles Davison, M. D., Professor of Surgery and Clinical Surgery, University of Illinois, College of Medicine; Fellow of the American College of Surgeons; Surgeon to Cook County and University Hospital, Chicago, and Franklin D. Smith, M. D., Clinical Pathologist to University Hospital, Chicago. Octavo, 369 pages, with 174 illustrations. Cloth, \$3.50 net.

The history of this subject is more ancient than is ordinarily supposed. It was in use for many centuries in the east and reached western Europe in the latter part of the 17th century. In 1682, Jobi Meekren, attempted to fill in a cranial defect in the skull of a soldier with bone from a dog but was compelled by the ecclesiastic authorities to remove it. Heteroplastic methods, which antedate the use of human bone grafts, are, however, less likely to be successful, quite apart from theologic objections. The recent history is epitomized and also reviewed in a bibliographic reference list. The various problems of histogenesis are carefully presented and special practical problems are discussed seriatim, with X-ray and photographic illustrations. In some instances, sugges-

tions, not yet corroborated by actual experience or by any large series of cases, are recorded.

The Art of Living Long. Edited and published by Wm. F. Butler, Milwaukee. 214 pages.

This consists of a translation of Luigi Cornaro's *Ia Vita Sobria*, in four discourses written at the ages of 83, 86, 91 and 95, the total span of his life being from 1464 to 1566; of essays on the same general subject by Joseph Addison, Lord Bacon and Sir Wm. Temple; of a life of Cornaro and a genealogic review of his family; and of various minor notes and quotations. Cornaro was fortunately free from business worries but he states that his constitution was delicate and that he was originally of a choleric nature. He preaches abstemious habits in all respects but considered wine, especially at certain seasons, necessary to the preservation of his life. Tobacco, though known by the discoveries of Columbus and his successors during the latter part of Cornaro's life, is not mentioned. One of Cornaro's reasons for wishing a long life was the hope to see begun and completed, the protection of the lagoon on which Venice is situated—a desire quite in harmony with the spirit of modern preparedness. This book, though not strictly medical and indeed, scarcely adding to what is actually known regarding longevity, is most interesting and the editor and translator is entitled to the greatest credit.

Memorable Addresses by American Patriots, from collection of John Clark Ridpath, published by Elliott-Madison Co. Chicago and Jones Bros. Pub. Co., Cinti. 111 pages, paper.

This contains Patrick Henry's speech on Resistance to Oppression, Washington's Farewell Address, Lincoln's Gettysburg Address, Bryan's Cross of Gold, McKinley's International Amity, Taft's Philippines, etc.

Colorado Industrial Plan, John D. Rockefeller, Jr., concluding with the Agreement between the Colorado Fuel & Iron Co. and Employes. 95 pages, paper.

Changes in the Food Supply and Their Relation to Nutrition. Lafayette B. Mendel, New Haven, Yale University Press. 61 pages, \$0.50.

Estimates based on increase of population, reserve arable lands and increase of productivity, indicate that the world will be up against the problem of getting enough to eat by

the end of the present century. Proso millet and kaoliang are mentioned as cereals available for general use. Improvements in methods of preservation, transportation, etc., and the marked changes in dietetic customs, as the lessened use of meat and eggs, the great increase in the use of sugar, the more general availability of fresh vegetables or canned fruits, etc., in winter, are mentioned. While the author does not make this the main purpose of his thesis, it is clear that the limit of production to support the human race can be postponed quite a while beyond that calculated on present and past conditions.

Handbook of Infant Feeding, Lawrence T. Royster, M. D., Norfolk, Va., published by C. V. Mosby Co., St. Louis, 144 pages, \$1.25.

This is an extremely practical, condensed treatise, covering both the general principles of infant feeding and the care of special nutritive conditions.

Diagnostic Methods, A Guide for History Taking, Routine Physical Examinations, etc., Herbert Henry Brooks, A. B., M. D., Memphis, Tenn., C. V. Mosby Co., St. Louis, 96 pages, illustrated, \$1.00.

While a very useful guide for a college course, the scope of the book is obviously too limited for general use, although it cannot be denied that the purchaser will get his money's worth. It is admirably adapted to "brushing up," either for an examination or other purpose but we trust that the author, having demonstrated his grasp of the subject and his ability to present matter in readable form, will follow up this book with a more comprehensive treatise.

Candy Medication, Bernard Fantus, M. D., Chicago, published by C. V. Mosby Co., St. Louis, 82 pages, \$1.00.

The surprisingly few officinal and proprietary preparations that are really pleasant, led the author to undertake various experiments toward the incorporation of medicaments with candy. Among the early attempts were a sulphur taffy and chocolate creams containing cod liver oil. (We recollect an unpleasant personal experience with such chocolate drops many years ago). A large number of available drugs are listed. Tablet machines and general principles of choice of excipient and flavors are described. 58 working formulae are given in detail, based on a list of 8 stock preparations. Among the latter, are found "Fat Starch," consisting of

15% of a 3% alcoholic solution of saccharin, 25% of liquid petrolatum (the purest forms should of course be used) and 75% of starch. The starch is mixed with the saccharin solution and, after complete evaporation of alcohol, the liquid petrolatum is incorporated. Cacao Sugar consists of 10% cacao powder, 10% dextrose (not absolutely necessary but making tablets of better consistence), 80 (or if dextrose is omitted 90) % powdered saccharose. This is flavored with $\frac{1}{2}$ C.C. of 10% spirit of cinnamon per 100 grams. "Fat Sugars" consist of 20% of "Fat Starch" and 80% of powdered sugar, with small quantities of harmless dyes and flavors. Candy medication is a highly important advance not only in the therapeutics of children but of grown persons and is due very largely, almost entirely in its pharmaceutic technicalities, to the author.

Starvation Treatment of Diabetes, Lewis Webb Hill, M. D., and Rena S. Eckman, with introduction by Richard C. Cabot, Boston, published by W. M. Leonard, Boston, second edition, 131 pages.

Great credit is due to Dr. Allen for developing this system of treating diabetes although it is only fair to state that the term starvation is to be taken with qualification as to time and degree and the method, in its essentials, is practically identical with that which many have used who have understood the importance of acid intoxication, the danger of fat, the ultimate necessity of carbohydrates.

Physiology of the Amino Acids. Frank P. Underhill, Ph. D., New Haven, Yale University Press. 169 pages, illustrated, \$1.35.

This is a critical review, summarizing the results of research in this branch of chemistry, with the needs of the clinician in mind. Experiments as to growth of experimental animals on different forms of proteid and their derivatives, are cited. It is impossible to do the work justice by abstracts. There are few branches of organic chemistry not directly applicable to diagnosis which have so important a practical bearing on medicine as this. The book should be read in its entirety. In relation to medical practice and in timeliness, it reminds us more of I. Walker Hall's work on the Purins than of any other.

Sexual Impotence. By Victor G. Vecki, M. D., Consulting Genito-Urinary Surgeon to the Mt. Zion Hospital, San Francisco. Fifth edition, enlarged. 12mo. of 405 pages.

Philadelphia and London: W. B. Saunders Company, 1915.
Cloth, \$2.25 net.

This work has become standard by its previous editions. It is full without being prolix, indeed the number of apparently extrinsic factors which have a bearing on the subject, is surprising. So far as possible, the author deals with the subject from an unbiased medical standpoint, although it is obviously impossible to avoid moral and social features.

Venereal Diseases. A Manual for Students and Practitioners. By James R. Hayden, M. D., F. A. C. S., Professor of Urology at the College of Physicians and Surgeons, Columbia University, New York; Visiting Genito-Urinary Surgeon to Bellevue Hospital; Consulting Genito-Urinary Surgeon to St. Joseph's Hospital, Yonkers, New York. 12mo., 365 pages, with 133 illustrations. Cloth, \$2.50 net. Lea & Febiger, Publishers, Philadelphia and New York, 1916.

The aim of the author is distinctly practical. It is easier to describe the work in a negative than in a positive way. Imagine that one eliminates the detail incident to a dermatologic and neurologic consideration of syphilis, that he is not a surgeon and not especially interested in any given highly technical instrumental procedure, as ureteral catheterization or cystoscopy, that he is not an amynologist nor a sociologist. He would then, with a full understanding of anatomy, physiology and pathology and a desire to write a thorough treatise on venereal diseases, with due attention to diagnosis, prophylaxis and therapeutics, write just about such a text book as the present. We do not mean to imply that the details mentioned have been altogether ignored, merely that they have been reduced to a practical working basis.

SYMPOSIUMS ON PRACTICAL MEDICAL ISSUES.

This method of collating professional opinion has been followed by many medical journals and to some extent by this one. Some weeks ago, Dr. Wm. H. Heath suggested that the regular establishment of a department of this nature would be of interest to our readers and we immediately ordered a thousand letter heads to be used in securing discussion of special topics by authorities. Obviously, success in such a movement depends largely on the combined favor and leisure of men upon whom we have no claim for the former and whose ability to speak with authority is not compatible with an abundance of the latter. Nevertheless, our experience

covering many years is that professional men are generous with their accumulated knowledge and that the busy man finds time to do many things for which the man of comparative leisure has no time. As regularly as possible, we shall publish symposiums on questions of interest and we ask the co-operation of our readers in formulating questions and starting discussions. Here, for example, is a question recently raised by a doubting Thomas: Is there a definite haemophilia actually corresponding to the text book descriptions and conforming to the stated peculiarities of heredity? This sceptic does not deny that obstinate bleeding occurs and that it is difficult or impossible of control, but he questions whether it is strictly idiosyncratic, believing that it is due to more or less temporary pathologic conditions, and he states that he has never been able to trace the peculiar hereditary chain of transmission described as typic of haemophilia. Without expressing a personal opinion, we would welcome reports, for or against, and suggestions of authorities who might be asked for opinions.

Quarantine of Infectious Cases.

The following questions were submitted to the Health Departments of a number of cities: "In what diseases is dismissal from quarantine based on negative bacteriologic evidence and in what on an arbitrary time limit? Is there any evidence that the latter method is not efficient or, on the other hand, that quarantine is unnecessarily prolonged? Is the former method applicable to typhoid? If not, what are the practical obstacles?" The letter head alluded to, expressly waived an insistence on categorical answers, as we felt that nothing so much obscures the truth as such a method—it being a matter of common observation that the questioning of witnesses in courts and the insistence on answers limited strictly to the questions as put often, if not usually, prevents the witness from fulfilling his oath to tell "the whole truth and nothing but the truth." The promptness and fullness of replies, and the number of replies received, in proportion to the number of letters sent, was most gratifying.

Factors Determining Quarantine in Infectious Disease.

By DR. GEO. L. NICHOLAS,

Chief of Division of Epidemiology, Dept. of Health, City of
New York.

Dismissal from quarantine is not in any case based solely upon an arbitrary time limit. Minimum periods of quaran-

tine, fixed for certain diseases, are to a large extent determined by bacteriological investigation and animal experimentation even where the specific germ is not actually known, for example in measles, where reducing the minimum quarantine to five days from the appearance of the rash, appears to be justified by recent studies in which the blood was found uniformly to have lost evidence of infectivity about the second day after the appearance of the rash. Further, aside from the laboratory study, we determine fitness for discharge from quarantine by the disappearance of fever, freedom from crusts or scabs, and the absence of catarrhal and suppurative processes.

The "carrier" is looming larger and larger as the active agent in the dissemination of a number of communicable diseases. Especially is this true of the convalescent or so-called acute carrier. Therefore, one might almost feel justified in taking the word in its real meaning and ask for an actual **quarantine**, a term of forty days. In fact, this is done in the cases of poliomyelitis. Such a measure would not by any means cover the whole situation. Chronic carriers who may or may not have had the disease themselves are another great danger. The handling of carriers is a part of quarantine work scarcely yet touched upon. Some of the reportable diseases listed in the New York City Sanitary Code are not officially quarantinable, that is, under pressure of other circumstances, the Board of Health does not regard them as sufficiently serious or readily communicable as to demand an enforced quarantine. In such diseases, however, isolation is often desirable. Here moral considerations come in. The ethics of infection is a topic not much dwelt upon, yet it is along these lines developed by popular education and awakened conscience, that any real success in preventing certain communicable diseases must come.

Take typhoid, for instance. How long shall we quarantine the patient? When a person recovered from typhoid comes to know the danger from carriers, and the limitations of the best laboratory work, if he is an honest man he will never discharge himself from a proper measure of isolation, never lift his quarantine. This does not mean that he cannot go about his daily affairs, but he will exercise such care and decency as to protect others from germs he may perchance excrete. For the individual sick with any communicable disease, isolation in due measure, if only behind a handkerchief when he sneezes, must be taught. It is his duty to keep this up in adequate degree until absolutely sure that all danger is passed.

Diphtheria is the only disease (ordinarily occurring in New York) that is regularly discharged from quarantine upon

bacteriological findings, two consecutive negative cultures from both nose and throat being required. Here is a case exactly to the point. It was found in following the above routine that a good many cases slipped through at a too early date, the two negative cultures being succeeded by a positive culture at the next trial. On this account, a definite time limit was added, not altogether arbitrary, but based upon the observation that a large percentage of diphtheria cases were free from bacilli in about two weeks after the onset. The rule of two consecutive negative cultures remains, but cultures for discharge may not be taken before the twelfth day after report of the case. This prevents discharge of the patient before the fourteenth day of the disease at the earliest (see Weekly Bulletin of February 19, 1916, page 59).

Dealing with diphtheria cases in which the bacilli persist is another matter. Here a virulence test is made which, if negative, permits release of the patient.

Scarlet Fever, on the other hand, is a disease in which quarantine is most nearly arbitrary, the minimum being thirty days from the appearance of the rash. Desquamation is not regarded as of any special significance as to infectivity; suppurative processes are more significant and ordinarily serve to confine the patient for several weeks longer. This arbitrary period is not always efficient in preventing secondary cases. Investigation of a series of scarlet fever patients discharged from Department hospitals after thirty-five days, and to all appearances quite free from the disease, showed that in some two per cent of the families involved secondary cases promptly developed among the other children. The present time limit of scarlet fever quarantine does not seem to be excessive.

In Measles the patient may be freed from isolation and allowed to return to school, for instance, five days after the appearance of the rash. The quarantine of exposed persons who have not had the disease, so far as school is concerned, is maintained at the old period of fourteen days. This early closing of measles cases is confined to those who are free from serious catarrhal or pneumonic complications. The rule has been in force now three years, and there is no evidence that any increase in measles cases has resulted. As noted above there is a hint of bacteriological backing for this new procedure in measles. The matter of isolation in measles is left in the hands of the private physician, a postal card certificate being filled in by the attendant for presentation at school.

In Typhoid Fever there is no time limit. In all questions of quarantine the laboratory report is relied on. There is a tendency to be much more particular about isolation in this disease. By a new regulation of the Board of Health

now lately put in force (see Weekly Bulletin January 22, 1916, page 30) no typhoid cases may be discharged until feces and urine taken not later than ten days after temperature has become normal have been submitted for bacteriological examination. Except in cases of food handlers, a positive result does not keep the individual from going about his affairs, but, of course, with instructions as to care about infecting others. A food handler may not resume work after typhoid fever until cleared by the laboratory. The only difficulty that may arise in carrying out this method is in the magnitude of the work when the disease is especially prevalent. Collecting stool specimens is not simple. Examination must be started promptly on the day the stool is passed. An extra heavy influx of specimens might well swamp a laboratory. Under such circumstances it would be better to confine the work to a thorough examination of food handlers and others with important social relations and let the rest go. While a single negative stool in the early days after typhoid fever is not conclusive, a positive result is very impressive to the patient and his friends. It is strongly educative. The Department of Health under some circumstances forcibly removes chronic typhoid carriers. All are kept under supervision as far as possible.

In Smallpox the patient is removed to the Department of Health hospital, and strictly isolated until free from all scabs, including the deep seated "seeds" beneath the epidermis of the soles of the feet. Suppurative processes should have subsided. There is no time limit. Exposed persons are kept under observation and in some instances in quarantine for twenty-one days.

For Epidemic Cerebro-spinal Meningitis the time is fixed at fourteen days. It has been found that meningococci in the naso-pharynx of convalescents are very rare after the twelfth or the fourteenth day. On the other hand, the relatively very large number of non-clinical carriers always occurring in an outbreak of this disease make quarantining a discouraging matter. There is no bacteriological examination for discharge.

For acute Poliomyelitis anterior the minimum isolation period is six weeks. This, too, is in a sense fixed by bacteriological consideration. It is clear that carriers exist, and the time limit is made as long as possible in reason.

In Yellow Fever, infectivity has been shown to disappear early in the clinical course. This has weight in deciding how long the patient must remain in quarantine—quarantine here meaning simply isolation from the mosquito.

In Epidemic Typhus Fever, strict isolation of the patient in the Department of Health hospital until the fever has en-

tirely subsided is required. In former years the practice was to supply all patients on discharge with an entirely new outfit of wearing apparel, old clothing and bedding being destroyed. There was also very thorough sulphur fumigation at the patient's home. At that time the way in which the disease is communicated was not known, but the above routine was exactly suited to the actual facts. Exposed persons were regularly held in quarantine for twenty-one days. There has been no occasion to handle Epidemic Typhus in the light of recent bacteriological studies.

In Brills' disease (modified or Endemic Typhus) sulphur fumigation is done at the patient's home. With due precautions as to lice the patient need not be further isolated. Recovery is marked by the subsidence of the fever.

For Cholera, the termination of the quarantine of the patient is strictly bacteriological. A minimum requirement is two consecutive negative stools taken at intervals of five days after convalescence is complete. Carriers occur. Exposed persons are quarantined five days.

After recovery from plague a patient presenting any suppurative or ulcerating lesion would be subjected to examination for the bacillus pestis, certainly before allowing him to go to a new locality.

In the cases of such diseases as Smallpox, Epidemic Typhus, Cholera and Plague, general principles alone can be given. In the handling of an actual outbreak of one of these diseases procedure would be modified according to the circumstances.

In the minor so-called contagious diseases, as German Measles, Mumps, Chicken Pox and Whooping Cough, isolation is not so strictly maintained. In German Measles it is arbitrarily fixed at seven days, in Mumps until all swelling is gone, in Chicken Pox until all scabs are off, while in Whooping Cough some more definite routine is being developed. It is believed that the more infectious period is in the early days. The specific organisms are scarcely found after the second week. Stricter isolation is therefore relaxed two weeks after the onset of the spasmodic cough. But this is an instance for relative isolation and recognition of personal responsibility. When taken out, the child must be kept strictly away from other and susceptible children until the spasmodic cough has entirely gone.

In Pulmonary Tuberculosis stricter isolation, even forcible removal to the hospital, is often required. Here again, bacteriological considerations determine the question of allowing the patient greater freedom. The moral obligation of the tuberculous subject is to be pressed to the utmost. If indi-

vidual isolation by all recognized precautions is not maintained by the patient, he is liable to removal to a sanatorium.

City of Syracuse.

Department of Public Safety, Board of Health, replied as follows:

In response to your inquiry regarding the dismissal after contagious diseases, will state at the present time the only two diseases which we dismiss on bacteriological findings, are Diphtheria and Typhoid Fever.

Our rule on Diphtheria is after two negatives, twenty-four hours apart, for the patient, and one negative on the other members of the family. On Typhoid Fever when two negative urine and stools are found. On Scarlet Fever the minimum time limit is thirty days, but then only on inspection by our Deputy Health Officer as to the freedom from discharges from the ear and nose, or any glandular discharges, and a perfect freedom from desquamation. Chicken Pox, when there is entire freedom from crusts, and a similar regulation for Smallpox.

My opinion in the matter of the release is that the above regulations are fairly satisfactory, yet I think it would be better to have a minimum time limit of quarantine on Diphtheria, say possibly ten or twelve days. The reason for that is that it so often happens with us that after two negative cultures, we might again find a positive, and I feel it is hardly safe to allow a child the entire freedom from quarantine to mingle with other children, under say twelve days, even though we do have two negatives.

In regard to Typhoid Fever we feel that if, after the entire cessation of the febrile symptoms, we get two negatives from the stools and the urine, we are fairly safe, provided the examination of the stool is conducted say an hour after it is discharged.

I do not feel that in the case of Scarlet Fever, thirty days is an unnecessarily prolonged period, as we find in many of our cases a somewhat delayed desquamation, and, also, are not able to feel positive that we will not get some complications like ear trouble or enlarged glands.

Trusting I have made myself clear, I am, very truly yours,
F. W. SEARS, Health Officer.

City and County of San Francisco.

Department of Public Health replied as follows:

Relative to your query of recent date, submit the following:—

1. In what diseases is dismissal from quarantine based on negative bacteriologic evidence?

A. Diphtheria and Typhoid Fever. (Specific vaginitis and ophthalmia neonatorum when in city hospitals).

2. In what diseases is dismissal from quarantine based on an arbitrary time limit?

A. Scarlet Fever and Poliomyelitis.

3. Is there any evidence that the latter method is not efficient or, on the other hand, that quarantine is unnecessarily prolonged?

A. No, excepting in Poliomyelitis, where the quarantine by rule is fixed at three months, which rule might be modified, as even up to the present no successful method, even inoculating monkeys with washings of nose and throat, has proven satisfactory.

4. Is the former method applicable to typhoid?

A. Bacteriological examination of stools are made of all typhoid fever cases in this city before they are released. Two negatives with five days interval is the rule. Carriers of diphtheria are treated as cases of diphtheria, the placard differing only in the word "carrier" being added.

Respectfully,

WM. C. HASSLER, Health Officer.

City of Chicago.

Department of Health replied as follows:

Your letter, asking for methods of terminating quarantine in contagious diseases, is received.

Diphtheria is the only disease which is terminated by bacteriologic evidence. We have requested hospitals to dismiss Typhoid cases only on absence of typhoid bacteriologic finding, and some of them are following the advice. It is feasible to terminate Typhoid fever in this way, but it means an adequate laboratory and more help in the field to secure specimens. It is the proper way to terminate Typhoid fever.

All other diseases quarantined, are terminated after a specified time period. This method can be used satisfactorily and with little danger of keeping up the quarantine too long. More danger of terminating too soon.

Under separate cover we are mailing you rules governing the quarantine of each disease. Yours very truly,

JOHN DILL ROBERTSON,

Commissioner of Health.

Rochester replied in brief that dismissal from quarantine based on negative bacteriologic evidence was in force for Diphtheria and Typhoid; and that in other cases, the time-limit method was satisfactory.

Owing to the miscarriage of blanks in the mails, we can report for Buffalo only the verbal information that diphtheria

is the only disease released from quarantine on negative bacteriologic evidence.

TOPICS OF PUBLIC INTEREST.

War Relief Clearing House for France and Her Allies. Contributions are needed as follows: zinc oxid adhesive plaster, 12 inches wide, operating tables, bed pans, small black rubber drains, rubber sheets, hot water bottles, syringes, thermometers, scalpels, scissors, surgical instruments, needles, hypodermic cases, clamps, rubber gloves, sheets, blankets, hospital garments. Obviously, supplies must be in usable condition. These should be sent prepaid to Ware-room of P. S. D. Fund, care of War Relief Clearing House, 133 Charlton St., N. Y., whence they will be forwarded free of charge to Paris and distributed as needed. A committee of physicians and dentists, C. N. B. Camac chairman, is endeavoring to secure pledges of \$2.00 a month from the professions in this country for the relief of their medical brethren. Last month, a brief allusion to this philanthropy was published in our advertising pages, the forms of the reading matter having been closed at the time that our attention was called to the appeal by Dr. Charles Cary. We wish it distinctly understood that the policy of this journal is one of strict neutrality, that our endorsement of this appeal is based solely on humanity and professional fraternity and that the same support will be given to similar philanthropies without reference to nationality.

Assistant Physicist. The U. S. Civil Service Commission announces an examination for men only, May 3, to fill a vacancy in the Bureau of Standards at Washington. The salary is \$1,400-\$1,800. The degree of Ph. D. or three years of post graduate training in optics, including spectroscopy, is required and the age is limited to 25-45. In the examination, spectroscopy is given a weight of 50%, publication or thesis 10%, education, training or experience 40%. Applicants should write immediately for form 1312. Examinations will be held at numerous points in the U. S.

Chief Statistician for Vital Statistics. The U. S. Civil Service Commission announces an examination to fill a vacancy in the Bureau of the Census, Washington. The salary is \$3,000. Competitors will not be assembled for examination, but will be rated as follows: Practical tests in statistics 20, thesis 20, education 25, experience 35. They must be gradu-

ates of a medical school and must have at least 4 years' experience in charge of the vital statistics of a city or state, or must have had some similar position. Applicants should apply immediately for form 1312. The first and second subjects of examination must be prepared on special paper to be furnished and must be in the hands of the commission by May 16.

Maximum Natural Temperature. Frederick Monsen, the explorer, while conducting observations for the U. S. Government in Death Valley noted Aug. 14, 1891, a temperature of 128 F. in the shade and 165 in the sun. The following year he noted unofficially, respective readings of 137 and 171. These are said to be the maxima for the world. Death Valley is one of the few regions of the world below sea level, the stream entering it disappearing by evaporation. The more or less marshy termination of this stream contains pretty sharply demarcated deposits of sodium chlorid, sodium borate and sodium nitrate. The humidity in the summer is too slight to be measured even by accurate hygrometers. 2-4 gallons of water daily must be drunk to maintain life; in fact, a supply must be carried and used frequently. The urine is scant and the high amount of moisture eliminated mainly by the skin does not show as sensible perspiration. Horses require 20 gallons of water a day.

Dietetic Department of University of Rochester. The late Lewis R. Ross former president of the Board of Trustees, who had suffered from dyspepsia, has left \$750,000 to the University to establish a Dietetic Dept. This represents approximately 2/3 of his estate. Yale, Cornell and Columbia already have similar departments.

Narcotic Law Decision. Dr. David Cohen of Buffalo was indicted for violation of Section 248 of the Public Health Law in "prescribing heroin, morphine and other dangerous drugs and not keeping a record thereof." He was defended by A. L. Harrison, Esq., Counsel for the Medical Society of the County of Erie, the trial being before Judge Charles A. Wheeler, Feb. 26. Mch. 3, Judge Wheeler handed down his decision that the words prescribing and dispensing were not synonymous; that a physician may prescribe these drugs to a patient after examination and need not keep a record thereof; that only when a physician dispenses, acting as a druggist, must he keep a record of the drug he dispenses. This is a most important decision.

The Degraff Memorial Hospital of N. Tonawanda, has re-

received \$10,000 by the will of the late James Sweeney Thompson, president of the hospital board, to equip an X-ray laboratory.

A Bill to establish a Bureau for the Study of the Criminal, Pauper and Defective Classes has been introduced into both houses of congress. The salary of the director is set at \$3,000, with \$6,800 for a clerical staff. In our opinion, the job is scarcely worth the agitation required to get the bureau started. One of the great obstacles to preparedness for war and efficiency in peace is the spending of money in small amounts on an unnecessary duplication of energy, by the various branches of the government.

Removal of Stains. (Abstracted from various sources). Brush, shake or remove by vacuum cleaner, loose dust from all fabrics before attempting to remove stains.

Grease and oils of animal or vegetable nature (Glycerole in combination with an alkali to form soap and glycerin). Woolen clothes, sponge with weak ammonia. Do not use fixed alkali. Linen and cotton, soak in weak ammonia water. Soap suds may also be used, but not too strong. Silks, benzene, soaking if possible, as sponging leaves a ring on evaporating. Or chalk or kaolin may be used to absorb the grease. Mineral oils, vaseline, etc. Lay a piece of blotting paper or coarse brown paper over the spot and hold a moderately hot iron over it. The paper will absorb the grease. Several pieces of paper may be necessary.

Sugar, syrup, glue, mucilage, blood. Wash with an abundance of water, changing frequently. For blood, use cool water immediately as it is very difficult to remove an old stain.

Varnish and paint. Linen, cotton and woolen, turpentine or benzene, preferably turpentine before the spot dries. Silk, benzene and soap, rubbing gently. Old spots should be softened with chloroform.

Vegetable colors, red wine, fruit, aniline ink, etc. Linen, vapor of burning sulphur or weak chlorin water, for certain dyes, alcohol containing a few drops of hydrochloric acid. Cotton, woolen and silk, dilute tartaric acid. Obviously, without knowing the exact nature of the coloring matter, it is impossible to give a rule of universal application, and dyes in the goods may also be removed.

Iron rust, iron ink. Linen, warm oxalic acid solution. Cotton and woolen, repeated washing with dilute solutions of citric acid. These may also remove dyes, and silk is especially hard to clean.

Tar, wagon grease and auto grease. Linen, soap and tur-

pentine, alternating with water under pressure. For iron spots (black) remaining, try oxalic acid. Cotton and woolen, rub hard with lard, soak well, wash alternately with water and turpentine. Silk, use benzene instead of turpentine, use water under pressure.

Stains are removed from the skin as follows: Silver nitrate, use ammonia water immediately, before blackening (reduction to metallic silver) occurs. Remove black silver deposits with solution of potassium cyanid or potassium iodid. The yellow stain remaining may be removed by a hyposulphite solution.

Chrysarobin. Chloroform or alcohol.

Resorcin. Citric acid solution.

Picric acid. Potassium sulphite solution, one minute, followed by soap and water.

Pyrogallie acid. No method found practical.

Potassium permanganate. Oxalic acid solution.

Anilin dyes, as from typewriter ribbon, indelible pencil and certain stains used in the laboratory. Alcohol, plus a few drops of hydrochloric or nitric acid, applied on a piece of cotton.

Gram stain. Alcohol applied on cotton.

Auto grease, etc. Gasoline applied on cotton, followed by washing with sapolio or soap containing some detergent.

Columbia College of Dentistry. Plans have been made for a department of dentistry, the requirements for admission and first two years of the course being identical with those of the College of Physicians and Surgeons. At the end of the second year, the dental students will receive special instruction. This will be the second dental school forming a department of a university, in the state, the first being that of the University of Buffalo. The course at Columbia will be four years in all.

A Bill to Standardize the Treatment of Tuberculosis in the United States, to provide Federal aid in caring for indigent tuberculous persons, and for other purposes, has been introduced by Wm. Kent of California. Be it enacted by the senate and house of representatives of the United States of America in congress assembled, That within the appropriations made from time to time for such purposes the secretary of the treasury is hereby authorized to aid state authorities in providing care and treatment for indigent tuberculous persons who are citizens of the United States, but not legal residents of the states in which they are temporarily located, and for this purpose may designate such public or private hospitals and sanatoria as may be necessary. Prior to being

designated to receive patients, and from time to time, said institutions shall be subject to inspection by officers of the public health service in order to determine the facilities and methods available and in use for care and treatment of patients, and the secretary of the treasury is further authorized to prescribe standards to which institutions shall conform in order to obtain the benefits of this act.

Sec. 2. That hospitals and sanatoria designated in accordance with the provisions of this act shall be entitled to and may receive from the federal treasury a subvention fixed annually by the secretary of the treasury, but not exceeding 75 cents per diem for each indigent patient admitted with the approval of the secretary of the treasury: Provided, that the state in which said indigent tuberculous patient is admitted to a hospital or sanatorium for treatment shall pay or cause to be paid a subvention, not less than that paid by the federal government, toward the cost of caring for such patient in said hospital or sanatorium. Subventions under this law will be granted only in the case of indigent patients who have submitted satisfactory evidence that they were not assisted by any person or institution to leave their legal residence or did not themselves leave in order to receive benefits under this act.

Sec. 3. That the secretary of the treasury is authorized to issue regulations governing the designation of institutions and establishment of standards and for otherwise carrying out the provisions of this act.; and he is further authorized to collect and make available for general use information and descriptive matter relative to the construction, equipment and maintenance of hospitals, sanatoria, and similar institutions.

Sec. 4 That detailed estimates of the sums required annually to carry out the provisions of this act shall be submitted hereafter in the usual book of estimates.

Government Manufacture of Munitions of War. Hon. Clyde H. Tavenner, representative from Illinois, in two speeches, "The Navy League Unmasked" and "The World Wide War Trust," raises an important issue regarding preparedness, which he does not by any means oppose. He does not especially emphasize the ethical and diplomatic problems arising from the sale of munitions by private firms, but holds that the government is paying 20-60% more than if it carried on its own manufactures, even under shorter hours and higher wages, and objects to the exploitation by private firms of the skill of officers trained at government expense, and of the results of experiment carried on directly at the expense of the government.

The National Guard at Niagara Falls will give rudimentary instruction in military drill to classes of citizens unable to enlist—a policy which we have advocated with special regard to the needs of physicians.

Commission Government. In January, 1915, we discussed this matter, then recently decided upon for Buffalo, calling special attention to the need of economic administration. The first tax rate under this form of government will be \$28 per thousand, the highest on record. The same excuse is offered as under the former system, that the preceding administration made an artificially low tax rate—which was not noticeably low but about the highest on record—but the real reason may be found that nearly every candidate for election as commissioner put the soft pedal on economy and the loud pedal on civic improvement and municipal philanthropy.

Change in City Physicians for Buffalo. In place of 10 city physicians at small salaries, supplemental to private practice, four appointments have been made for full time work at \$1800 a year. These appointments are provisional pending the establishment of a civil service list. Dr. A. C. Callahan, West Side District, 1067 Grant Street; Dr. Leon S. Kurek, North Broadway, Central and Stock Yards District, 591 William Street; Dr. John H. Wild, Kensington and Sycamore District, 770 East Ferry Street; Dr. Charles Leone, Oak, Chicago, Cazenovia and Water Front District, 404 Seneca Street. Office hours 8:30-10, 1-3, 7-8. The Superintendent of the Poor and the police may call upon the city physicians for services to the needy.

The Bath Hospital opened its new home, formerly the residence of the late Dr. A. H. Cruttenden, March 4. It will now accommodate 35 patients, being the largest hospital between Rochester and Elmira. The hospital began four years ago in the old Pultney Land Office. Recognizing the need of better accommodations, Dr. Cruttenden provided by will that his residence should become the property of the hospital. The equipment has been provided largely by the generosity of Drs. H. J. Wynkoop and D. H. Smith, but an open-door policy will be maintained toward the profession.

Standards for Bottled Waters. The Bureau of Chemistry of the U. S. Dept. of Agriculture has established the following: Total number of bacteria developing on standard agar plates incubated 24 hours at 37 degrees C., not more than 100 per c. c., estimated from averages of not less than two plates showing such numbers and distribution of colonies as

to indicate that the estimate is accurate. Not more than one out of five 10 c. c. portions shall show organisms of colon bacillus group, following technic of U. S. Public Health Service. (Note: The policy of this journal has been not to accept advertisements of bottled waters without reliable bacteriologic testimony as to purity).

The Child Welfare Board held its annual weighing day in the Tonawanda High School March 4, and in North Tonawanda March 7. Drs. C. W. Clendenan, R. H. Wilson, W. W. Britt and T. P. C. Bernard were in charge.

Proper Food for Young Children. Farmers' Bulletin No. 717, by the U. S. Dept. of Agriculture, prepared by Caroline L. Hunt under the direction of Dr. C. F. Longworthy, is a non-technical discussion containing recipes and direction for mothers. Clean whole milk, at least a quart a day is the basis of the diet for a child 3-6 years old, plus bread and other cereals, butter and other fats, vegetables and fruits and "simple sweets." This can be obtained by physicians, and is of special value in directing the care of children at a distance from milk stations and from other special sources of supplies.

Automobile Statistics. 234,032 motor vehicles were registered for N. Y. State in 1915, an increase of 64,000 over 1914. This represents about one car to 40 persons. For Erie Co. the registration was 18,471, about 1:30. The average price for the state was \$814 as opposed to \$2,123 in 1907. Western N. Y. has more automobiles in proportion to population than any other comparable area in the world.

The Harrington Lectures May 30-June 1, at the commencement of the University of Buffalo, will be given by Dr. Milton J. Rosenau, Prof. of Preventive Medicine and Hygiene at Harvard. Two lectures will be on Anaphylaxis and one on Education for Public Health Service as a Career.

College Merger. The College of Physicians and Surgeons and the Medical School of the University of Maryland, both located in Baltimore, have been merged.

The Central and Northern Alumni Assn. of the University of Buffalo held its second annual dinner in Syracuse March 9. 125 graduates of various departments were present.

Old Age Poverty. S. W. Strauss of Chicago, in Leslie's Magazine, states that 66% of persons dying in the U. S. leave

no estate whatever, that only 9% leave more than \$5,000, and that the average for the other 25% is only \$1,300. It is further stated that 98% of the population of the U. S. live from day to day on their wages. On reflection, these statistics are not so bad as they appear. Almost one-third of all deaths occur in persons under 20, very few of whom could have accumulated anything except by inheritance or gift. Thus, of adults, not quite half leave no estate, and about 14% leave \$5,000 or more, while about 39% average \$1,300. Many small estates of persons who have not only supported themselves but their families, with a little left over, are settled informally, and many large estates are undervalued. 100% of the population living on incomes, is a *reductio ad absurdum* which shows that a close approach to a hand-to-mouth existence for the majority of adults really means general prosperity. It must be remembered also that a large number of persons, especially elderly men and women, that appear to be dependents, really earn their living in the households of relatives, and could do so, though less agreeably, among strangers if necessary. However, these qualifications must not be understood as deprecating thrift nor such social and economic conditions as tend to a more equable distribution of wealth.

SOCIETY MEETINGS

Brief reports and announcements of meetings of societies of Western New York, and those of general scope, are requested from Secretaries. Copy should be on hand the fifteenth of the month. Full transactions will be published at cost of composition.

DOCTOR: Is your Society properly represented here? If not, please bring our standing announcement to the attention of the members.

The Alienists and Neurologists of the U. S. will hold their fifth annual meeting in Chicago, June 19-23, under the auspices of the Chicago Medical Society. A general invitation is extended to the medical profession. Feeble-mindedness, with special reference to legislation, will be considered.

The Columbia Alumni Assn. held its annual dinner at the Ellicott Club, Buffalo, Mch. 13. The principal speech was by Dr. Walton Martin, Prof. of Clinical Surgery, describing his experiences in the military branch of the American Hospital in the war zone.

The Rochester Academy of Medicine, Section III, met Mch.

8. Dr. Jas. K. Quigley gave a paper on Vomiting of Pregnancy; Dr. Clyde C. Sutter on Diet during Pregnancy and the Puerperium.

The Elmira Academy of Medicine held its regular monthly meeting Mch. 1. Dr. W. A. Dewitt of Blossburg, Pa., read a paper on Local Anaesthesia; Dr. A. H. Baker of Elmira on "Should Auld Acquaintance Be Forgot?"

The Buffalo Academy of Medicine has held the following meetings since our last report: Mch. 1, Surgical Section, Transplantation of Fascia and Bone, with stereopticon views, Dr. J. T. Rugh of Philadelphia.

Mch. 8, Medical Section, Modern Development of Physical and Colloid Chemistry, G. H. A. Clowes, Ph. D.; Symposium on the Diatheses in Medicine: Internal Medicine, Dr. A. E. Woehnert; Surgery, Dr. H. A. Smith; Ear, Nose and Throat, Dr. J. F. Fairbairn; Paediatrics, Dr. J. A. Ragone; Nerves, Dr. L. Kauffman.

Mch. 15, Section of Obstetrics and Gynaecology, Spontaneous Rupture of Uterus, Dr. F. C. Goldsborough; Premature Separation of Placenta, Dr. E. A. D. Clarke; Haemorrhage into Adrenals, Dr. W. F. Jacobs; Pituitrin in Obstetrics, Haemorrhage in New-born, Dr. N. Kavinoky; Eclampsia, Dr. Wm. M. Brown of Rochester.

Mch. 22, Stated Meeting under auspices of Section of Pathology; Relation of Laboratory Worker to Practitioner, Dr. A. A. Thibaudreau; Sudden Death, with lantern slides, Dr. H. U. Williams.

Nominations were made for the election in June, as follows: President, Dr. Lawrence Hendee; Treasurer, Dr. B. F. Schreiner; Trustee, Dr. W. W. Plummer.

The New York State Homoeopathic Medical Society will hold its annual meeting in Rochester, April 11-12, under the presidency of Dr. J. S. Dowling.

The Medical Society of the County of Erie, held its postponed meeting Monday, February 28, 1916, at 8:30 p. m., in Townsend Hall, 25 Niagara Square.

The Secretary read the minutes of the Annual Meeting held December 20th, 1915, and also the minutes of the Council meetings held January 13th, 1916, and February 14th, 1916, which were approved.

Applications for admission to the Society were received from:

Dr. Harry J. Hammond, 1058 Elk St., Buffalo, N. Y.; graduate of the University of Michigan, 1909; graduate in

medicine from the Medical Department of the University of Cincinnati, June 14th, 1913; also a member of the Ohio State Society and the Academy of Medicine of Cincinnati. Dr. Charles F. Dowitz, 436 Franklin St., Buffalo; graduate of the University of Buffalo, June 6th, 1914. Dr. Evelyn Hollis Hunt, 219 Bryant St., Buffalo; residence, Hamburg, N. Y.; graduate of the University of Buffalo, June, 1915. Each of these applicants were separately voted upon and admitted to membership.

Dr. A. T. Lytle, submitted the following amendments to the By-laws:

That Chapter IX of the By-laws be so amended that Section 4 shall become Section 2; that Section 2 become Section 3; that Section 3 be abolished and that new Sections 4, 5 and 6 shall be created as follows:

Sec. 4—Nominations for elective offices may be made at the regular meeting next preceding the annual meeting; nominations so made shall be printed in the notice of the annual meeting.

Sec. 5—For use at the annual election the Secretary shall prepare printed ballots which shall contain under the proper titles the names of those nominated according to Chapter IX, Section 4, and also space in which may be written the name of any other member for whom a member desires to vote.

Sec. 6—Voting shall only be done by members in person depositing a ballot with tellers who shall be appointed by the President and who shall report the result of the election to the Society before the adjournment of the annual meeting. The polls shall remain open for not less than two hours after the opening of the annual meeting.

(Signed) ALBERT T. LYTLE.

These amendments were laid on the table in conformity with the By-laws. There being no further business the following Scientific Program was proceeded with:

Program. Business Session. Symposium on "Public School Education, from the Standpoint of the Physician." Is the school doing its full duty by the child? Dr. H. H. Glosser. Education and Mental Preparedness, Dr. F. Park Lewis. Education and Physical Preparedness, Dr. James W. Putnam. Medical Inspection—its Results, Dr. De Lancey Rochester. Discussion: Dr. Thomas H. McKee, Hon. Adelbert Moot, Supt. Henry P. Emerson, Miss Mary H. Lewis, Principal A. Duschak, Principal A. G. Bugbee. General discussion.

OBITUARY

Readers are requested to report promptly the death of all physicians in Western New York, or former residents of this region, or graduates of any medical school in Western New York, and to notify the families of the deceased of our desire to publish adequate Obituary notices.

Dr. J. A. Rene, formerly of Superior, Wis., who went to Mexico three years ago, has been condemned to death by Carranza.

Dr. Andrew J. Butler, of Unadilla, Rush 1891, cut his throat with a razor March 3. He was exhausted and probably temporarily out of his mind, on account of an all-night vigil with a patient.

Dr. Wm. L. Rodman, Jefferson, 1879, Prof. of Surgery in the Medico-Chirurgical College of Medicine of Philadelphia, and a well known surgeon and author, died of pneumonia March 8, aged 58.

Mr. William Pierce Hagee, President of the Katharmon Chemical Co., of St. Louis, died Feb. 3.

Dr. Samuel H. Linn, University of Penn'a, 1877, for some years a resident of Rochester, died early in March, aged 72.

Dr. Ivan Pavlov, the well known physiologist, recipient of the Nobel Prize in 1904, died recently at Petrograd, aged 67.

Dr. Henry Baird Favill of Chicago, Chairman of the Council of Public Health and Public Sanitation of the A. M. A., died Feb. 20 at Springfield, Mass., of pneumonia.

Sir Wm. Turner, M. D., Principal of the University of Edinburgh, died recently aged 83. He was a physiologist and anatomist, editor of the Journal of Anatomy and Physiology, and a medical writer of note.

Dr. James Edwin Medden, Long Island College Hospital, 1895, died at Seneca Falls, of septicaemia Feb. 11, aged 56. He had been a supervisor for Seneca Co. and president of the County Medical Society.

Dr. Edward W. Roos, Buffalo, 1903, was born in Buffalo March 29, 1880. After graduation from the Masten Park High School, he entered the Medical Dept. of the University

of Buffalo. After receiving his medical doctorate, he practiced in Howard and Avoca, took a post graduate course in London in 1913, and located in Corning. His health failed and he died in New York city Feb. 26, the funeral being held from his former home in Buffalo.

Dr. Henry L. Elsner, of Syracuse, died suddenly on the afternoon of February 17, 1916, in Washington, D. C. His death was the final phase of a chronic cardio-vascular condition which he had known and which had caused apprehension amongst his intimate friends for several years.

Dr. Elsner was born in Syracuse, N. Y., August 15, 1857. His father was a physician and the son never thought of any other career for himself. His education preliminary to medicine was carried on in the public schools of his native city, from which he went to the College of Physicians and Surgeons, now the Medical Department of Columbia University, and from it received the degree of M. D. in 1877. That same year his cousin, the late Dr. Nathan Jacobson, was graduated from the Syracuse Medical College. Together they journeyed in the autumn to Vienna and for a year were under the instruction of the eminent professors of the Vienna University Medical School, a faculty at that time of the highest repute in the world. Dr. Elsner selected work that should fit him as an internist, while Dr. Jacobson chose the field of surgery. They returned to Syracuse in 1879 and Dr. Elsner opened an office in North Salina Street. He attracted the attention of the best men in medicine very early and in 1882 he was nominated by Dr. H. D. Didima, Professor of the Theory and Practice of Medicine in the Syracuse Medical College as instructor in Medicine and was unanimously elected to that position. From that time until his death he was actively engaged in teaching. In 1884 he was advanced to the position of Lecturer, and in 1886 to the position of Professor of Clinical Medicine. Upon the retirement of Professor Didima from the deanship and from the chair in medicine in 1893, Dr. Elsner was elected full Professor of the Science and Art of Medicine.

In 1881 Dr. Elsner married Pauline Rosenberg of Rochester, a woman of great personal charm, keen intellect, and noble ideals. She was his comrade and his constant inspiration. Their beautiful life of closest companionship ended almost simultaneously. Mrs. Elsner nerved herself to endure the strain of her husband's death and directed the details of the funeral and followed his body to the tomb. She then collapsed and died in coma February 23.

Dr. Elsner was lavishly endowed by nature. He had a noble head and a fine manly body. His personality was

charming. He was kind hearted and friendly with all. His disposition was sunny, and his manners cultured but democratic. He was animated by a noble purpose and had himself in perfect control under all the circumstances of life. He had accurate and rapid powers of observation, good judgment, a fine imagination, a remarkably retentive memory, and an innate gift of expression, which, under cultivation, made it easy for him to deliver an opinion with an effectiveness that none can forget. These qualities made him a natural leader in his profession and attracted and held a clientele of the most intelligent people.

He began to write out and present his observations on medical subjects early in his career, and the list of his contributions to medical literature is very long. In Forcheimer's *Therapeutics of Internal Diseases* he wrote the treatise on Pneumonia. At the solicitation of the Appletons he had just finished a work on Prognosis for their *Monographic Medicine*. This volume is about to be issued. It contains twelve hundred pages and is a treatise on Medicine with special attention directed to prognosis. This is the first serious work on Prognosis published in English. It reveals Dr. Elsner's great learning and the wealth of his extensive experience in internal diseases in a most masterly way. It is a worthy companion to the volumes on Clinical Diagnosis by Lewellys F. Barker, on Differential Diagnosis by M. Howard Fussell and on Special Pathology by Albion W. Hewlett.

Dr. Elsner received every honor which the medical profession could bestow upon a fellow member. He was elected successively to the presidency of the Syracuse Academy of Medicine; the Onondaga Medical Society, the Central New York Medical Society, the New York State Medical Society, to the House of Delegates and to the Committee on Education of the American Medical Association and to membership in the American Climatological and Clinical Society. In June, 1915, Syracuse University gave him the honorary degree of LL. D.

The teachers and students of the College of Medicine in which his best work was done can never forget him. He was accurate, painstaking, kindly, always ready with helpful suggestions and always willing to forward the interests of the school and of the students. As a consultant Dr. Elsner was very widely esteemed. His large and varied practice, his wide acquaintance with medical literature and with leaders of medical thought and practice, added to his keen power of observation, made his diagnosis certain and his counsel wise. It is not given to all of us to attain such a height, but we shall miss the lesson of his life if we fail to see that accurate diagnostic ability can proceed only from systematizing

careful, painstaking and accurate observations of the phenomena of disease, and that the art of medicine is acquired only by him who is its constant student.—John L. Heffron.

A Memorial to William Irving Thornton.

The officers and members of The Practitioner's Club having learned with deep regret of the death of Dr. William Irving Thornton on January 16, 1916, at this the first meeting following his death, desire to give expression to their sorrow in the loss of an honored colleague, and of their high appreciation of Dr. Thornton as a man, and a physician and sur-



geon. Dr. Thornton had an attractive personalty. He was cheerful always, possessing a sweetness of disposition, and as one approached him and looked into his face his eyes at once were full of thought and kindness, and as one entered into conversation with Dr. Thornton or listened to his papers and discussions before medical bodies, one was impressed that simple straightforward honesty of purpose and sincerity of thought were marked attributes of his nature. Though

unassuming and retiring by nature Dr. Thornton was energetic and optimistic in his work. He was a skilled diagnostician, careful, conscientious, persevering, untiring, resourceful in his care of the sick: always kind, sympathetic, and beloved alike by his patients and associates.

Looking back over the whole seventeen years of Dr. Thornton's medical practice there has been no blot, no departure from the practice of high ideals and high standards.

He was steadfast in the employment only of the most highly approved scientific instruments and methods of procedure in his diagnostic and therapeutic work. And for this we, his associates in the medical profession, honor and cherish his memory, and recognize in his death the loss of an honored colleague, close friend, and a Christian gentleman, fully appreciating that we shall miss his encouragement and helpful advice.

Also, the members of this club desire to express their unbounded sympathy to the stricken ones of the home to which he brought so much happiness, and to his immediate associates, and lovingly commend them to the care of the Great Shepherd who alone can give true comfort and consolation in this their great hour of extreme sorrow. Dr. Thornton was a charter member of this club; he was present at the organization meeting November 2, 1905, and took an active part. He made the motion that the temporary chairman of the meeting appoint a committee, and later was appointed a member of the committee on by-laws. He has been Vice-President and President of the club and chairman of the committees on membership and program. He has been faithful in his attendance, and active in the presentation of cases, specimens and papers, and his discussions have been frequent, broad-minded, helpful contributions. In view of which it seems highly appropriate that we should adopt this memorial to serve as a record of our pride in our late colleague, and of our sorrow at his loss.

Therefore, be it Resolved, that a copy of this our heartfelt tribute to his worth be engrossed and conveyed to the family of our late fellow, and it be spread upon our minutes.

Committee—John R. Gray, John Middleton, Edward L. Frost.

Members—C. E. Curtice, F. A. Drake, H. K. DeGroat, T. F. Dwyer, John R. Gray, E. L. Frost, William F. Jacobs, John Middleton, D. C. McKenney, Edward A. Sharp, James Stoddart, William H. Thornton, Geo. A. Himmelsbach, James E. King, Chester D. Moses, H. C. Rooth, George A. Sloan, W. G. Taylor, W. Irving Thornton, Harry M. Meed.

CORRESPONDENCE.

This department is intended for the presentation of news and views not coming within the scope of other departments, and particularly to afford opportunity for discussion and criticism of views elsewhere expressed.

The Barlow Sanatorium Association

Chavez Ravine Road, Los Angeles, Cal., March 16th, 1916.
Dr. A. L. Benedict,

Editor of the Buffalo Medical Journal.

Dear Doctor:—

I appreciated your notice and abstract of my article on "Kroenig's Isthmus" in the Boston Medical and Surgical Journal. I am sorry to have given the impression, however, that I was describing this ancient method as original or even recommending it, in fact the object of my study was to point out the limitation of Kroenig's method as it had been repeatedly mentioned as a very important diagnostic point, in spite of the understanding as to the anatomical difference. That this mistake in interpreting my conclusions is not your fault was evidenced by the discussion at the meeting of the National Association, when several members arose to **agree with me in emphasizing the importance** of mapping out the apical field, when I had been trying to point out the **unimportance** of this method.

Hoping you will understand that I should want to correct this wrong impression, I am,

Very truly yours,

DR. WALTER C. KLOTZ.

OUR CONTEMPORARIES.

Health News, the Bulletin of the N. Y. State Dept. of Health, devotes its March issue to cancer. Every physician should read this number carefully, noting especially that the State Institute for the Study of Malignant Diseases will examine specimens free of charge.

The Proctologist appears, beginning with the March issue, as The Proctologist and Gastroenterologist, and will be published quarterly as the component journals have been. Dr. Rollin H. Barnes of St. Louis continues as managing editor and publisher. The editorial staff consists of Dr. Lewis Brinton, Philadelphia, Gastroenterology; Dr. Anthony Bassler, New York, same; Dr. A. L. Benedict, Buffalo, Dietetics. We

may add that the last appointment is provisional and depends upon the ability to add to the amount of labor beyond practice.

The Medical Record celebrated its 50th anniversary in a special number of unusual excellence, March 4. Our congratulations to our young colleague.

The Journal of Immunology appears with Feb. 1916 and will be issued bi-monthly as the official organ of the Society for Serology and Haematology and the Am. Assn. of Immunologists. Dr. Arthur F. Coca will be at the head of the editorial staff of 36 members, there being also an international advisory board of nine: Simon Flexner, Wm. H. Park and Theobald Smith of N. Y.; Ludwig Hektoen of Chicago; Robert Muir of Glasgow; F. Nuttall of Cambridge; Victor C. Vaughan of Ann Arbor; Wm. H. Welch of Baltimore and A. E. Wright of London. It is unfortunate that this journal should perpetuate so abominable a word as Immunology but, otherwise, it is of the highest order. Since the death of Dr. Achilles Rose, we are at a loss when onomatologic reform is needed, but we suggest Amynology. Our best wishes to the new journal.

PERSONAL.

Announcement of removal, travel, and other matters of interest are requested. Please report errors in the listing of any physician in the State and other directories, that we may co-operate with the State Society in securing a correct list.

Dr. Frederick J. Haller of Buffalo returned from Florida the first of March.

Dr. A. L. Benedict of Buffalo would be greatly obliged for information as to Indian village sites, earth-works, graves and finds of relics, in western N. Y. and eastern Ontario.

Dr. Monroe Manges of Buffalo returned from a trip to Florida and the West Indies, about the first of April.

Dr. Lawrence G. Hanley of Buffalo, visited in Connecticut about the first of March.

Dr. Milton E. Bork, Buffalo 1915, has been substituting on the staff of Bellevue Hospital and has received second ap-

pointment on the House Staff of the Ear, Nose and Throat Dept. of the N. Y. Post Graduate Hospital.

Dr. Eloise Walker of Binghamton spent a week in Buffalo last month.

Dr. Richard J. Gould of Buffalo announces his removal to 1355 Main Street, near Utica.

Dr. Alfred W. Armstrong of Canandaigua will limit his practice to Surgery and Diagnosis after April 1.

Dr. John L. Eckel has removed his offices and residence to 476 Franklin Street, near Allen.

Dr. W. C. Heussy (Buffalo 1895) has moved from 708 Leary Bldg. to 902 Boren Avenue, Seattle.

The Martin H. Smith Co. announce their removal from 105 Chambers Street to 150-156 Lafayette Street, New York City.

Dr. A. W. Palmer of Buffalo returned from a southern trip March 18.

ABSTRACTS.

Have you ever felt that this department of the **BUFFALO MEDICAL JOURNAL** was lacking in abstracts of your specialty, or that such as were published lacked the expert judgement which you yourself could have exercised in selection and preparation? If not, you are more charitable than the editor has been to himself. If so, will you assist in abstracting from a few journals, and thus make this department more representative and more valuable? Incidentally, there are few forms of study more helpful to the worker than this.

Removal of Bullet From Right Ventricle. L. H. C. Birkbeck and H. M. W. Gray, Brit. M. J., Oct. 16, report a case of a soldier, X-ray showing bullet in or close to the lowest portion of the wall of the right ventricle. Operation under moderate dose of morphine, with local use of eucain, potassium sulphate and adrenalin, was successful but death occurred 4½ days later from multiple pulmonary infraction from clots in the ventricle.

Psychologic Study of Criminals. C. S. Rossy, using the Yerkes-Bridges point scale, Mass. State Board of Insanity Bull.

No. 17. reports as follows on 300 examinations in the State Prison: 22% feeble-minded, 9.6% border line cases, 3.3% presumably psychotic. The 22% are custodial cases.

Viability of Cholera Virbio in Water of N. Y. Bay. A. J. Gelaire, Rosebank, N. Y., Med. Rec., Feb. 5. From culture experiments with water taken from the Bay, the following conclusions are reached: Multiplication does not occur but the vibrios survive from 7 to 47 days.

Antityphoid Vaccination. Leo Bernard (quoted in Med. World, Jan.) from a study of 800 cases of typhoid, states that the mortality was 5½% for the vaccinated and 17% for unvaccinated. He believes that the former rate would have been still lower if all had received a triple injection.

Cardiac Traumatism. Beaussenat, Acad. de Med. de Paris, reports a case in a soldier aged about 25, struck by a fragment of a hand grenade, which pierced the diaphragm, and pericardium and lodged in the right ventricle, Oct. 1, 1914. Feb. 17, 1915, the fragment was removed and the heart sutured. Intense dyspnoea and imminent syncope were noted for three days, during the next three days there was some fever and there were some pulmonary complications. Recovery was perfect after a month.

Casualties of German Army Surgeons. Up to Dec. 25, 1915, 1,084 army surgeons were included in the casualty lists: 37 civilian physicians, 377 active medical officers, 373 officers of reserves, 287 assistants. Of the total, 361 were killed, 142 severely wounded, 388 less severely wounded, 102 taken prisoner, 90 missing. It will be noted that the ratio of killed, exclusive of future deaths among the wounded and of the missing, was almost exactly 1:3, which is more than the general ratio of past wars for the troops in general, and probably close to the average for the present war. The army surgeon shares to the full the risk of the soldier.

Influenza. Anna R. Williams of the N. Y. Dept. of Health, in an examination of 50 cases of "influenza" obtained the following cultures: streptococcus 26, diplococcus lanceolatus 19, micrococcus catarrhalis 18, **Bacillus Influenzae** 9, staphylococcus pyogenes 9, bacillus capsulatus 6, bacillus bronchi-septicus 2, Vincent's bacillus 1. (Note that the figures show joint infection in many cases, the associations not being statistically given). A few months ago, the influenza bacillus was found in only 1 case in 20 of grippe. (Boston M. & S. Jour., March 2.)

Exaggeration of Danger of Syphilitic Infection. Blaisdell. Boston M. & S. Jour. presents the following statistics: 60 known syphilitics exposed 1,227 individuals, 134 by intercourse, 442 by domestic relations, 651 by association at work. 5 of the 1,227 became infected, 1 a child by his mother's kiss, 4 by intercourse. While there is something to be said as to the possibility of infection by accidental contact, more or less indirect, it is significant that no case could be traced to association at work.

New Symptoms of Duodenal Ulcer. Heinrich Stern. Arch. of Diag., No. 4, 1915, states that, to prevent epigastric pain, the patient assumes the standing posture in preference to sitting or stretches out in a long slant, whether in a chair or bed. He may rest on the back or left side but not on the right. This sign is not present in gastric ulcer (?Ed.). There is none of the tendency to doubling up manifested in appendix inflammation, gall stones, colic, etc.

Mann White Slave Law. The Critic & Guide, March, editorially notes that of 22 persons confined in a penitentiary after conviction under this law, 19 are there "as a result of an absurd perversion of justice or as a result of blackmail." The Bulletin of the Am. Social Hygiene Assn., Jan., states that a systematic process of blackmail has been carried on by the plan of placing prominent men in compromising situations and that a million dollars in hush money has been collected. (Note: While expressly waiving support of vice in any form, we took the ground at the beginning of the discussion of this law that any legislation which passes from the standard of actual damage and overt violence to that of pure morality, using the term morality in its broadest sense, is liable to abuse and impossible of execution except under circumstances that favors blackmail.—Ed.)

Foreign Bodies in the Rectum. Llewellyn Eliot. Washington, Wash. Med. Annals, Jan. These bodies may have been swallowed, introduced through the anus, or may perforate through the male bladder or female vagina. Erotism is a large factor. King Edward II of England was murdered in 1327 by plunging a red hot iron into the rectum through a horn tube. (Note: It is explained that this method was employed as the assassins considered the person of royalty too sacred to be mutilated in any ordinary way). The Greeks punished an adulterer by introducing a peeled radish covered with hot ashes into the rectum. (Note: A somewhat analogous punishment in vogue among the Central American aborigines, for anyone who violated a virgin, was to twist a

branched thorn in the urethra. If the victim recovered, there was no further punishment but, obviously, he usually died from urinary retention or septicaemia).

Among published reports of foreign bodies which have been swallowed some will be mentioned: needles, pins, bones, fruit seeds, large pieces of meat, gristle, false teeth, coins, forks, knives, mice, bits of glass and pieces of jewelry; of those formed in the intestines are: various enteroliths incident to bilious disorders and hardened feces; while among those introduced through the anus we find: bottles, pieces of wood, drinking glasses, snails, coins, jewelry, the frozen tail of a pig, and military despatches.

The *necessaire*, a thing common among the equipment of criminals, consists of a cylindrical box of wood, closed at one end with wax; it contains several pieces, sometimes as many as thirty, which fit into one another so as to form a file or a saw, the box making a convenient handle. Although this instrument is very imperfect, still with patience and application iron bars may be sawn through. A *necessaire* will ordinarily measure from five to seven inches, and while it looks innocent enough, it may cause the death of the person concealing it. Closmadeuc recorded an instance where one unfortunate had concealed the instrument, but it caused such a peritonitis that death resulted, and at autopsy it was found in the transverse colon. By some jugglery of imagination this instrument often receives his name.

The length of the sojourn of these bodies in the rectum may be a few hours, some days, sometimes several months, and occasionally some years.

It would require too much time to quote the many reports of foreign bodies removed from the rectum; let it suffice to make mention of a few of the more important and singular: Adler; the handle and the valve of a steam radiator pipe, $1\frac{1}{2}$ inches in its smallest diameter, $2\frac{1}{2}$ inches at the other end. Shields; a bar of silver $5\frac{1}{2}$ inches long, $8\frac{1}{2}$ inches in circumference, and weighing 30 ounces. Sevilla; a glass insulator used for telegraphic wire; abdominal section was required; death resulted. Truell removed a large stone by abdominal section; Warren; a catsup bottle 10 inches long, 9 inches in circumference, and refers to a case of a beet 7 inches long, $3\frac{1}{2}$ inches in diameter; $3\frac{1}{2}$ multiplied by 3.1416 makes 10.9956 inches in circumference; he refers also to a case of Walker, where a turnip $9\frac{1}{2}$ inches in circumference was removed. Rhett Goode; the bulb of a 16-candlepower incandescent electric globe, $7\frac{1}{2}$ inches in circumference, was pushed into the rectum for the relief of piles; the globe was broken in extraction, the rectum wounded and death resulted; in the discussion of this paper, C. W. Stiles spoke of

a soldier who had regularly, for two or three months, introduced turkey heads into the rectum in order to obtain his discharge from the army; also of a specimen that had gone from laboratory to laboratory, without a solution of its identity, and was finally proved to be the fetus of a kitten that a man had introduced into his rectum. Stiles also spoke of a woman who had introduced fish entrails, and of another who had used those of a pigeon. Jenkins; a case where tramps had assaulted and robbed a man; not getting enough money from him, they took a turnip, hollowed out the lower end, put a potato in the hollow, and passed a string through them from end to end, then pushed the thing into his rectum. Pollak; a champagne flask $12\frac{1}{2}$ inches long, $2\frac{3}{4}$ inches in diameter, $8\frac{2}{3}$ inches in circumference; had been in the rectum for 26 days. Dahlenkamp; a piece of oak bark, $4\frac{1}{2}$ inches long, found 5 inches up the rectum, had been there for ten years. White; a ten-pin, 10 inches long, 2 inches in circumference. Adler; the bones of a fetus of extra-uterine pregnancy, and as some of our members may recall, P. J. Murphy reported a similar instance to this Society.

The author reports personal observations of faecal impaction, two of swallowed bone, and of a wicker covered cologne bottle, 10 inches long and 8 in circumference, accidentally introduced into the rectum instead of the vagina, where it had been employed for masturbation.

A New Test for Urinary Sugar. The difficulties associated with the performance of the ordinary tests for sugar in the urine, of which Fehling's is by far the most commonly employed, are well known, so that the invention of a new diagnostic reagent is a matter of considerable clinical importance. In the *Biochemical Journal* for March, Dr. William Cramer describes a method of employing the reduction of a weakly alkaline solution of mercuric oxide to metallic mercury in the presence of suitable sugars, which he considers to have special advantages as a test. The reagent is prepared by dissolving 0.4 gr. of mercuric oxide, red or yellow, with 6 gr. of potassium iodine in 100 c.c. of water, and adjusting the alkalinity of the solution so that 10 c.c. are neutralized to phenol-phthalein by 2.5 c.c. of decinormal acid. The resulting solution is colorless in the cold and turns slightly yellow on boiling. To test for sugar in urine 3 c.c. of the reagent are heated to boiling; then 0.3 c.c. of urine is added and the mixture again boiled. On removing the test-tube from the flame, the mixture darkens if sugar be present, and a deposit of black metallic mercury gradually settles to the bottom. Not only glucose, but lactose, maltose, xylose, and arabinose give the reaction, while cane sugar does not. The

sensitiveness of the test fluid can be varied by increasing or diminishing its degree of alkalinity, and the point fixed, as stated above, corresponds to a degree which gives a faint reaction with normal urine, which is known to contain about 0.1 per cent of sugar. If the reagent is made more alkaline and thus more sensitive, it may give a precipitate with creatinin and other organic substances. Dr. Cramer finds that the "2.5 standard" solution gives a definite reaction with small amounts of sugar in the urine, which only produce doubtful results when tested with Fehling's fluid. He suggests as an indication of the degree of the reaction the possibility of reading print through the solution when boiled in an ordinary test-tube 30 seconds after this is removed from the flame, a few drops of acetic acid being first added to remove any possible turbidity due to phosphates. Small quantities of sugar can thus be recognized and roughly estimated. Ammoniacal urine must not be used for the mercuric test any more than in performing Fehling's reaction.—Med. Fortnightly.

Pathogenesis of Spontaneous and Experimental Appendicitis, Ulcer of the Stomach and Cholecystitis, Edward C. Rose-now, M. D., Rochester, Minn. Jour. Ind. State Med. Assn., October, 1915. Elective Localization of Streptococci following intravenous injection from Appendicitis. Ulcer of the Stomach and Cholecystitis.

Source of Streptococci	Time of use	Strain	Animals Injected	Percentage of Animals Showing Lesions in					
				Appendix	Stom.	Duod.	Gallbladder	Pancreas	Intestines
				Hem.	Ul.				
Appendicitis—									
	When isolated	14	68	68	6	1	1	0	9
	Later	8	26	15	19	15	4	0	0
	After animal passage..	7	22	45	45	30	40	0	20
Ulcer of stomach in man—									
	When isolated	18	103	2	60	60	20	3	7
	Later	8	22	5	5	0	5	0	0
	After animal passage..	7	39	0	23	33	30	15	15
Cholecystitis—									
	When isolated	12	41	0	29	15	80	5	17
	Later	5	14	14	28	14	7	0	0
	After animal passage..	4	16	0	31	13	56	19	13
Average per cent. of animals showing lesions in									
these organs exclusive of specific strains....				5	20	9	11	6	8

Occurrence of Wassermann Reaction in Hospital Patients.

A. A. Horner, Boston, Boston M. & S. Jour., Feb. 10, presents the following table:

	Positive.	Negative.	Total.
All cases	87	413	500
Pneumonia	10	49	59
Emphysema	2	6	8
Pulmonary tuberculosis	4	36	40
Hemoptysis	1	0	1
Cardiac			
Auricular fibrillation	2	0	2
Aortic disease	1	5	6
Aortic and mitral disease.....	1	5	6
Mitral disease	5	51	56
Cardiorenal	5	5	10
Renal	4	21	25
Diabetes Mellitus	2	6	8
Erysipelas	7	13	20
Rheumatic fever	2	16	18
Other Arthritis	2	9	11
Typhoid	5	14	19
Influenza	1	4	5
Scarlet fever	1	2	3
Malaria	1	3	4
Sinusitis	1	1	2
Stomatitis	1	1	2
Brain tumor	1	2	3
Cirrhosis of liver.....	2	6	8
Anemia, primary	1	1	2
Cardiospasm	1	0	1
Peptic ulcer	1	2	3
Cancer (stomach)	1	16	17
Alcoholism	1	30	31
Heat Exhaustion	1	1	2
Syphilis	18	2	20
Acute Poisoning	1	12	13
Morphinism	1	0	1
Miscellaneous	0	94	94

Familial Syphilis. Jeans, Am. Jour. Dis. of Chn., Jan. has investigated 100 families. Hereditary germ transmission of syphilis has not been demonstrated in any instance and seems unlikely. It is probable that all mothers of hereditary syphilitics are themselves syphilitic and this was demonstrated by the Wassermann test in 85% of a series of 86. The 100 families gave a total of 331 pregnancies. 30% of the pregnancies resulted in abortion, 9% in still births. Of the 61% of living births (202 children born alive) 24% had died. Of

the 154 children surviving, 80% were syphilitic. This leaves almost exactly 10% of the total pregnancies as yielding viable, healthy offspring. Kassowitz's rule of decreasing virulence of infection with passage of time, was noted.

Vander Bogert, *ibid.* reports a case of twins, one syphilitic and Mongolian in appearance like an elder brother, the other twin being healthy.

Anthropometric Data. E. A. Hooton, Cambridge, Mass., Boston M. & S. Jour., Jan. 27, denying the existence of carnivorous and herbivorous types of man, gives the following tables:

(Males). After Martin.			
	Stature.	Weight.	Index of Bodily Fullness
Europe			
Norwegians	170.0	66.0	1.29
Polish Jews	161.0	55.0	1.31
Swiss (Schaffhausen)	169.4	65.8	1.35
South Russian Jews	165.1	61.3	1.42
Asia			
Javanese	163.5	50.2	1.15
Japanese	162.0	52.0	1.22
Sudanese	159.4	51.5	1.27
Koreans	163.1	56.4	1.37
North Chinese	167.6	64.4	1.37
Africa			
Bushmen	155.4	40.4	1.07
Baluba	169.0	53.3	1.10
25 Pre-sacral Vertebrae.		23 Pre-sacral Vertebrae	
908 Europeans.....	4.3%	1.2% (Bardeen)	
524 Europeans.....	6.2%	2.6% (Fischel)	
640 Europeans.....	3.9%	4.7% (Rabl)	
358 Europeans.....	5.0%	3.0% (Keith)	
	13 Ribs.	11 Ribs.	
524 Europeans.....	6.6%	0.5% (Fischel)	
680 Europeans.....	6.2%	0.3% (Rabl)	
908 Europeans.....	0.7%	0.9% (Bardeen)	
Africa			
Average Height (Males)			
Dinka. Nuer		180.0 cm.	
Sara		181.7 cm.	
Shilluk		177.7 cm.	
Baghirmi. Wadi. Fur.....		178.0 cm.	
Europe.			
Scotchmen		174.6 cm.	
Englishmen		172.8 cm.	
Swedes		170.9 cm.	
Italians		163.0 cm.	
Spaniards		162.0 cm.	

Incised Wound of Heart, Suture and Recovery. Dr. Wm. J. Coleman, Baltimore, Maryland Medical Journal, Feb. 1916. (Cut by courtesy of editor). A colored woman, aged 36, had been slashed across the chest with a razor. Two wounds had been made, one superficial in the left breast (showing as pigmented line outside of nipple the other much longer and deeper, penetrating the thoracic wall, with collapse of lung, and opening the pericardium for a length of 2 c.m. 10 c.m. of the fifth rib was resected, after controlling superficial



haemorrhage and the pericardial wound was enlarged to expose a wound in the left ventricle. Three catgut interrupted sutures were placed in the heart, a cigarette drain introduced into the pericardium and the pericardium sutured down to the drain. The left pleural cavity was cleaned by sponging, two cigarette drains placed and the muscles and integument closed with catgut and silkworm gut. Recovery was uneventful. Simon collected up to 1912, 241 operations for gunshot wounds of the heart with 124 deaths (51%) and 200 for stab wounds with 99 deaths (49%).

Oculocardiac Reflex. Levine, Arch. of Internal Med., May 15, 1915.

1. Ocular pressure affords a simple and safe method of obtaining reflex vagus inhibition of the heart.

2. Inhibition of the heart by the oculocardiac reflex is much more profound and more frequently obtained than by pressure over the vagus nerve.

3. The oculocardiac reflex is generally absent in tabes dorsalis, present in pneumonia, syphilis (non-tabetic), and chronic valvular disease.

4. The reflex was absent in one case of diabetes mellitus and also in one case of auricular fibrillation before digitalis treatment. It was present after digitalis was given.

5. Right ocular pressure has a slightly greater effect on the rate of the heart than left. It may stop the heart for a long period of time, relatively speaking; the P-waves are sometimes diminished in size and may become iso-electric. Occasionally the auriculoventricular interval is lengthened.

6. Left ocular pressure has a much greater effect on the conduction mechanism of the heart than right. It may lengthen auriculoventricular conduction, cause partial heart-block, and result, possibly, in automatic ventricular rhythm. On two occasions inverted P-waves were seen. The height of the R-waves is sometimes increased, at other times diminished. Ectopic ventricular beats were twice observed. The P-waves are often diminished in size, but occasionally are increased. Escaped ventricular beats were seen both during right and left ocular pressure.

7. Pain, flushing of the face, and apnea during ocular pressure, are much less pronounced in tabetics than in non-tabetics.

8. The effects on the rate and on the rhythm of the heart produced by ocular pressures are not constant, differing in different individuals and in the same individual from time to time. The duration and degree of pressure play an important part in the degree of inhibition.

Recent Treatment of Septic Wounds. A. E. Morrison and W. J. Tulloch, Brit. Jour. of Surg., p. 276, 1915, vol. 3, use sterilized solutions of magnesium sulphate 4 parts, glycerin 1 part, boiling water 3 parts, claiming lack of pain and pus, healthy granulations and the necessity of renewing dressings only twice a day. W. St. C. Symmers and T. S. Kirk, Lancet, Dec. 4, use urea in powder, claiming better results in sloughing infected wounds than from any other method, renewing the application every 24 hours and recommending it as a first aid dressing.

Dark Field Illumination in Diagnosis of Syphilis. R. G. Owen, Henry Snure and W. G. Pitts. Jour. Mich. State Med. Soc., Feb., tabulate 25 cases of 3-45 days' duration, 1 case urethral, 1 oral, 1 labial and 3 of finger, 19 of genitals. The dark field method showed spirochetes in 20 cases and of these only 1 reacted positively Wassermann, the oral case of 40 days' duration, though 11 others reacted positively Wassermann, 2 weeks to 6 months later. Three cases failed to show spirochetes but reacted positively Wassermann, respectively lingual, 21 days' duration, labial 22 days, and genital 15 days. Two genital cases were negative by both tests, the Wassermann being repeated at the end of 2-3 weeks and 6 weeks. These were, respectively 3 and 10 days old when first examined. How the last two cases were diagnosed is not stated, probably clinically. The superiority of the direct determination of the spirochetes, especially in the first week or so before secondary infection has occurred, as with staphylococci, and before the serum test has developed, is of practical importance, not to mention the doubt which some authors have cast on the reliability of the Wasserman test. The India ink substitute for dark field illumination may be employed but is somewhat less reliable.

Unusual Degeneration of the Cervix. Alfred Smith, reporting to the Irish Academy of Medicine, said that the patient, aged sixty, the mother of sixteen children, consulted him on account of a profuse slimy discharge. The menopause came on ten years ago. She enjoyed good health up to last August, when she noticed a slimy discharge from her vagina. There was neither hemorrhage nor pain nor offensive odor. On making a bimanual examination, the vaginal portion seemed to have disappeared, the margins being flush with the vaginal vault, the os being so dilated that the index and middle finger could easily be passed in. The impression conveyed was that there was no internal os, that the cavity of the uterus was greatly dilated; the mucous membrane felt like velvet pile. This slight palpation caused hemorrhage. On curettage, large quantities of brain-like matter came away, as in cancer.

The pathologist reported non-malignant. A simple panhysterectomy was performed. The total length of the uterus was 12 c.m., fundus 3.5 c.m., cervix 8.5 c.m., greatest width 6.7 c.m. The fundus of the uterus is normal, but the cervical portion is greatly thickened. On section, this thickening is seen to be due to the transformation of the normal muscle wall into a spongy mass infiltrated with mucoid material; this mucoid material is directly continuous with a large amount of mucus in the cavity of the cervix. This change

affects the whole contour of the cervix, though it is more marked in the anterior and left wall. The remains of the true cervical wall are represented by a thin layer of fibro-muscular tissue. No evidence of malignancy. The specimen is in the nature of a channeled mucous polypus, but is remarkable in that it engages more or less uniformly the whole of the cervical wall.—(Dublin Jour. Med. Sci., Sept., 1915).—Med. Times, Dec.

African Arrow Poisons. Castellani and Chalmers' Manual of Tropical Medicine is quoted (*ibid.*) to the effect that these poisons are made by evaporating a decoction of various species of *acocanthera*, many tribes adding snake's heads and gall bladders which probably do not add to the toxicity, although symptoms of venom poisoning are occasionally noted. Treatment consists in ligation to prevent absorption of poison, removal of arrow head, which is usually barbed, prompt lavage with potassium permanganate, stimulation of heart, cupping or sucking of wound, the after treatment consisting in the ordinary routine of a poisoned wound, antitetanic serum being advised on general principles. Death in untreated wounds occurs within a few minutes by cardiac failure, after a brief period of quickened respiration and convulsions. The potassium permanganate method is regarded as efficacious if promptly applied. Natives are supposed to immunize themselves by eating the poisonous plants themselves. (Note: It is interesting to learn that the profession in S. Africa is still meeting problems of the early part of the 19th century and of the 18th and 17th in America, though arrow poisons were scarcely used by the northern American Indians.—Ed.)

Pneumonia Inoculation. F. S. Lister, Med. Jour. of S. Africa, Nov., 1915, finds that three, subcutaneous injections of 100-400 million killed pneumococci do not develop demonstrable agglutinins nor opsonins in the serum of rabbits but that a single intravenous injection of 100 million does. Intravenous injection of weak vaccine of 5 different strains, in a human being, develops the specific agglutinins and opsonins for each strain.

Precocious Maturity. F. Beekman, Arch. of Paed., 1915, xxxii. 4, reports a case in a girl of 6½ years, mentally on the actual age, physically appearing as a girl of 16, with menstruation, mammary development, etc. Radiograms also showed corresponding ossification. There is a review of the literature.

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ORIGINAL ARTICLES

The right is reserved to decline papers not dealing with practical medical and surgical subjects, and such as might offend or fail to interest readers. Contributors are solely responsible for opinions, methods of expression and revision of proof.

Wound Technic

By JAMES A. MacLEOD, M. D., M. R. C. S., Eng., F. A. C. S.,
Buffalo, N. Y.

Our Science, or I may call it our Art, has advanced during the last few years in an incredible manner; operative technic is becoming nearer perfection every year; the sterilization of our equipment has become reasonably certain; but the skin is no nearer perfect sterilization today than it was years ago. Opening on the surface of the skin are myriad tubules leading up from the sweat and sebaceous glands situated in the deeper portions of the skin; these are inhabited by countless numbers of bacteria, the kind depending largely upon the personal cleanliness of the patient, but of which the staphylococcus albus is usually the predominant organism. It is true that the staphylococcus albus is not a very virulent organism, but it is able to cause suppuration in the wound and give rise to trouble which may be far reaching in its importance. Besides the staphylococcus albus we have other organisms usually present, and the part played by them depends upon their kind and number. It is quite evident, from the deep and wide distribution of the bacteria, that it is practically impossible to completely sterilize the skin without destroying the skin itself. Following a careful pre-operative preparation of the skin, cultures taken are negative; but taken at the completion of an operation, lasting more than a few minutes, very often show bacterial growth; this may be explained by the fact that the manipulations of the operation and the heat present are favorable to the migration of bacteria from the deeper portions of the tubules to the surface. The skin, notwithstanding elaborate

precautions taken in its preparation, is, therefore, liable to become infective soon after the commencement of the operation; how soon it becomes so depends largely on how much of the chemical used in its preparation is left on the surface, and how long it remains there. Various chemical and organic substances have been used, and are being used; but iodine is probably the one substance par excellence at the present time; most men, however, recognizing the danger of irritating the delicate peritoneal covering of the abdominal viscera that may come in contact with the skin, remove it by alcohol; but by so doing, the time of the skin remaining sterile is much shortened, as the presence of the iodine is a direct hindrance to the existence of living bacteria.

In abdominal work the presence of chemical irritants on the surface and the re-appearance of bacteria are of great importance, and I shall discuss the problem, first, in regard to the abdominal viscera, and second, in regard to the wound:

First: Even where the iodine is followed by alcohol, it may be conceded that traces of it are left; any iodine left would act as a direct irritant to the delicate peritoneal coat of the viscera brought out on the surface of the skin. Later on in the course of the operation bacteria may make their re-appearance; the time of such occurrence depends on the amount of iodine left on the surface, the amount of traumatism to the wound and the amount of heat present. Bacteria, being present, are liable to cause an infection of the peritoneal coat of the viscus or viscera resting on the surface of the skin; the degree of infection depends on the kind of bacteria present and the number, and may vary from a mild one to a severe and wide-spread inflammation. Probably we have a mixture of both these irritations in the majority of cases. The viscus or viscera are returned to the abdomen and there undergo an inflammatory reaction, depending on the amount of the irritation or infection received on the surface of the skin. Where the reaction is due to chemical irritation it may be of a mild character, but yet sufficient to cause the gluing of viscera together and the formation of adhesions. Where the reaction is due to bacterial infection, it is usually of a low grade type and it is readily taken care of by the peritoneum; it is, however, sufficient to cause the gluing of viscera together, the formation of adhesions and a partial paresis of the intestinal muscles, with all of its distressing signs and symptoms.

Second: The re-appearance of bacteria on the surface of the skin is especially important in the question of wound infection, which depends upon a number of factors: 1: The presence of bacteria, their kind and number. 2: The presence of suitable culture material in the shape of blood or

blood clot. 3: The amount of traumatism of the tissues of the wound; the fat is the most fragile of the layers, least resistant to traumatism and it is, therefore, the commonest seat of infection of all the layers. 4: The sewing of the skin; here the needle perforates the skin and must necessarily pass through numerous ducts containing bacteria, which are carried by the needle in its passage. When an infection does occur it may vary in intensity from a mild irritation to a wide-spread inflammation; furthermore it may have remote results in the shape of a septic infarction of the lung, a condition very commonly looked upon as a post-operative pneumonia due to the anaesthetic, and other remote secondary infections. It is true that wounds do heal by first intention even in spite of the presence of bacteria, but such depends upon, first, the high resisting power of the tissues, second, minimized traumatism of the tissues of the wound, and third, the low degree of virulence of the bacteria present.

Following the operation we may have immediate trouble with the wound in the shape of complete rupture, due to the premature disappearance of the suture material, or later in the shape of a ventral hernia. In the former the calamity is explained by Oschner as due to a chemical action taking place by the presence of some enzyme, causing a softening and solution of the suture material; this may be the explanation but I am inclined to think that faulty preparation of the gut plays a considerable part.

From the above considerations it is plainly seen that the exclusion of the skin from the actual field of operation, as so ably pointed out by Moynihan and others, is, or should be, an extremely important part of our operative technic. The technic used by the surgeons who recognize the importance of skin exclusion vary somewhat, but the basic principles are the same. That which I have been using for more than a year may be outlined as follows: **First:** The skin is shaved carefully, scrubbed thoroughly with soap and water, using a soft wash cloth and plenty of water, and then rubbed with alcohol; this is done to insure a clean dry surface free from oil or fat; when practicable a steam or cabinet bath should be given the day preceding the operation. **Second:** The field is covered by a dry sterile dressing or towel; wet antiseptic dressings should be avoided to prevent any possible maceration of the superficial epithelium, which is favorable to the growth of bacteria; lately I have had no dressings applied at all. **Third:** After the patient is anaesthetized the skin of the field of the operation is painted with a 5% alcoholic solution of iodine, which is allowed to dry; this is not washed off by alcohol but allowed to remain with the idea of its acting on any bacteria that might migrate to the surface

from the deep tubules. **Fourth:** The operative field is surrounded in the usual manner by sterile towels and sheets. **Fifth:** The skin incision is made of ample length for free work and any bleeding stopped by the application of hemostats. **Sixth:** Cloths are clamped to the edges of the incision, taking in as much fat as possible and covering the hemostats; the cloth clamps are preferably placed on the deep sides of the cloths; the cloths are clamped together at the extremities of the incision and the skin is then found to be completely excluded from the further steps of the operation: I find that the domestic bathroom wash cloths answer the purpose exceedingly well. **Seventh:** The abdomen is opened through the various layers to the extent of the incision. **Eighth:** During the balance of the operation exposure of the viscera, omentum, intestines, etc., not intimately engaged in the operation, is prevented by the application of large abdominal packs wrung out of hot normal saline solution; if the operation be in any way prolonged the packs should be changed from time to time to insure that the parts are not only kept covered and free from traumatism, but are also kept warm; it is often noted that the intestines, in close proximity to the focus to be operated upon, are at the commencement of the operation in an acutely congested condition, and that, at the termination of the operation, they have regained their normal color. **Ninth:** The abdominal work being completed the viscera are returned to their normal position, special care being taken with the replacement of the omentum, and the peritoneum closed; in regards to the omentum I may report that within the last month I have operated upon three patients, who were suffering from colonic stasis due to post-operative adhesions; in each case the omentum was found bunched and adherent to the ascending colon and adjacent abdominal wall, and causing obstruction. **Tenth:** Taking into consideration the possible risk of the premature disappearance of suture material I have instituted at this stage of the operation a row of interrupted kangaroo stitches through the muscles and aponeurosis; the aponeurosis or rectal sheath is approximated by a continuous chronic gut stitch and the kangaroo stitches are tied. **Eleventh:** The skin cloths are carefully removed from the field of operation and discarded. **Twelfth:** The skin is again painted with the iodine solution. **Thirteenth:** The wound is swabbed out by a cloth wet with hot saline solution and any bleeding points controlled by ligature. **Fourteenth:** 3 or 4 interrupted silk-worm stitches are inserted from within outwards and embracing all layers with the exception of the peritoneum (but are not tied); these are inserted from within outwards to preclude the carrying of germs down from the surface and

tubules to the deeper parts of the wound. **Fifteenth:** The edges of the incision are approximated by a row of metal clips, which do not perforate the skin; the reason for the use of approximating clips instead of a stitch is again to obviate the chance of carrying bacteria into the deeper tissues. **Sixteenth:** The silkworm stitches are either carried through sections of tubing and tied, or tied over a metal frame; by so doing the tension exerted is kept even and the skin is not cut by the stitches in their pressure downwards. **Seventeenth:** The operation is completed by painting again the skin field with the iodine solution. **Eighteenth:** The dressings are applied dry and kept in position by a wide strip of adhesive plaster, reaching nearly to the spine on each side, and from the ribs to the ilium; no bandage or binder is applied; the patient finds this mode of dressing very comfortable as the abdominal muscles are evenly supported, and I find that the patient suffers less from distension and its accompanying distress.

The after-care: The adhesive binder is split down the middle on the second or third day; the wound is inspected, again painted by the iodine solution and dry dressings applied. The binder is brought together over the dressings by means of a running string placed through perforations on the opposite sides. On the seventh day the clips are removed and on the tenth the silkworm stitches are removed.

The procedure as outlined above is elaborate and increases the time of the operation, but the benefits accruing are well worth the extra time and trouble. To summarize the benefits I may say that they are as follows: First: The use of skin cloths, the frequent painting of the surface of the skin with the 5% alcoholic solution of iodine, the insertion of the silkworm stitches from within outwards and the approximation of the skin by metal clips, which do not perforate the skin, practically obviates wound infection.

Second: The absence of wound infection minimizes the danger of septic pulmonary infarction and other remote secondary infections.

Third: The protection of the abdominal viscera from chemical irritation or bacterial infection by the use of wound cloths and their protection from traumatism by the use of hot abdominal packs minimizes the formation of post-operative adhesions, post-operative distension, etc.

Fourth: The use of the row of interrupted kangaroo stitches obviates the danger of immediate rupture of the wound by the premature disappearance of the suture material, and minimizes the danger of the formation of a ventral hernia later on.

Exsudative Diathesis—A Review*

By CARL G. LEO-WOLF, M. D., of Buffalo, N. Y.

Historical: His (33) and Krehl (42). The idea of the diatheses is very old. It played a prominent role in the medicine of ancient Greece, especially the school of Galenus. He considered diathesis and constitution to be the determining factors in the symptoms of disease, and he regarded a faulty mixture of the elements and the temperaments, and the consequent disturbance of the equilibrium of the body as the cause of disease; while he viewed the changes in the organs as a secondary matter only.

This ancient theory of the crases persisted up to the beginning of the modern scientific study of the natural phenomena, when exact examination took the place of philosophical speculation.

Virchow's cellular pathology and the wide-spread use of the microscope finally dislodged the constitutional theory, supplanting it by the pathology of the organs and the principle of organic localization.

Some German clinicians however, such as Henle and Wunderlich, still adhered to the idea of the constitutions, and the French school of medicine, under the leadership of such men as Teissier, Bazin and Lancereaux, kept up the theory of constitution and diathesis.

The German school of medicine of the beginning of this century was forced to acknowledge that the physiological, anatomical-localistic, and etiological considerations of the diseased state did not comprise the sum-total of the morbid processes. They realized that the medical student is still forced to employ, not only the exact results of chemistry, physics and experimentation, but also experience and empirics, which latter are frequently nothing more than a series of obscure impressions. Thus we have come to the conclusion, that the road to truth in medicine leads over careful observation, both at the bedside and in the laboratory, and that we must not be dominated by a skeptic negation of everything savoring of the theoretical.

Medical writers in Europe, especially in Germany and France, have given ample expression to the theories of disposition and constitution. In Pediatrics as well as Dermatology these theories have helped us to understand many a clinical picture which would otherwise have remained veiled.

The Diatheses: The term "diathesis" attempts to give ex-

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pression to the internal relations of heterogenous groups of diseases, due to individual conditions, which are usually congenital, often hereditary. In these physiological stimuli cause an abnormal reaction and morbid phenomena under normal conditions of life.

At present we are able only to recognize certain groups of symptoms, to which we give the name of a diathesis; such as arthritism, lithemia, exsudative diathesis, spasmophilia, status thymico-lymphaticus, mongolism, infantilism, eosinophilia, some neuropathies, hemophilia, perhaps also epilepsy, chlorosis and the hypoplasies of the aortic system. His (33).

The French School of medicine recognizes the "diathèse arthritique." This they regard as a disease of the intellectual classes, of those with sedentary habits, and therefore a disease of degenerating races.

Comby (18) considers arthritism as a morbid temperament, a diathesis, which is dormant in childhood and does not appear until adult life, when it will break out in one of its paroxysms of gout, asthma, glycosuria, nephritic colic, migraine, etc. In childhood however the symptoms of the hereditary taint will be observed under the guise of imperfect nutrition, incomplete development, hypertrophies or hyperplasies, a defective arterial system, and an abnormal and easily vulnerable connective tissue. He quotes H. Cazalis, who stated, that the irritability and degeneration of the skin, the mucous membranes, the entire connective tissue, seem in arthritics to be due to the lack of a substance which is easily used up.

Comby thinks that arthritism is mostly inherited from the father, rarely from the mother, also that it is most frequent amongst the urban middle class population, especially Hebrews, people who work mostly with their brains and are overfed.

In well-cared-for nursing babies certain evanescent cutaneous manifestations will be found as a sign of the morbid constitution, such as eczematous patches on the face, prurigo, tenacious and recurring eczema of the cheeks, forehead or scalp, these may also become generalized, they are very difficult to treat, recur constantly and may torment the child for years. Other babies may remain without these manifestations from the skin or mucous membranes, but they will be nervous and excitable, with an ugly disposition and prolonged crying spells, will be poor sleepers and suffer from night terrors, and have spasmophilic symptoms. Others again will have arthritic attacks of headaches, migraine, "cephalalgies uricémiques." pseudo-intermittent fever and arthritic fever.

The so-called paraarthritic signs of the obese arthritic children, according to Comby, are pallor, lymphatism or scro-

phulosis, exaggerated or irregular appetite, bulimia, indigestion from overeating, habitual constipation or diarrhoea alternating with constipation, gas, borborygmata, distended abdomen, signs of gastric dilatation, painful intestinal colic, muco-membranous enteritis, dysenteriform colitis, cyclic vomiting, hemorrhoids; discharges from the mucous membranes such as conjunctivitis, spasmodic coryza, epistaxis; abundant sweating. These children are very sensitive to drafts, have frequent colds, spasmodic cough with pharyngitis, laryngitis, laryngo-tracheitis; cerebral affections; pains in bones or joints, lassitude in the limbs; persistent headaches, apathy, discouragement, neurasthenia, lack of inclination to either mental or physical exercise; predisposition to chilblains, urticaria, purpura, acne; in girls at puberty chlorosis; spasms of the bladder, seminal emissions, neuralgias, subcutaneous edemata, and priapism even in infants.

Later in life we will observe premature baldness, articular swellings, hydrarthrosis, cracking in the joints and arthritis sicca.

This description of Comby's is rather comprehensive, and it includes, as we will see later, exsudative diathesis as well as all the different diatheses of other writers.

Hutinel (35), another leader of French pediatrics, states that it is, at present at least, very difficult to define arthritism. It is not a disease, but a morbid temperament, a peculiar form of metabolism which may be, in some cases, acquired, but is mainly inherited, and it is a difficult matter to give an exact formula of the special disturbance of metabolism which exists in a given case.

He also describes under arthritism all the different diatheses, and goes as far, as to say, that there seems to be an antagonism between arthritism and tuberculosis, so that tuberculosis will take a slower course in arthritic subjects, with a tendency towards sclerosis and an ultimate cure, although this has lately been denied by other French writers such as Poncet et Leriche, and Léon Bernard.

Hutinel also recognizes as "*état lymphatique*," the status thymico-lymphaticus of Escherich and Paltauf, which he has observed in children with hereditary syphilis, arthritism, lymphatism and defective nutrition. This however may also be due to overfeeding, badly regulated feeding and poor digestion. He compares these pale and puffy children very aptly with plants, which have been watered too much and which are therefore too juicy. The weight of these children gives a wrong impression of their actual condition, they have little resistance to diseases, they may die suddenly and unexpectedly.

De Monchy (61) thinks that arthritic and exsudative dia-

thesis should be clearly separated, even more so than has been done by Czerny, he considers Stoeltzner's "oxypathy" as very similar to the *diathèse arthritique*."

Galup (24) brings arthritism as a diathesis in relation to anaphylactic phenomena. He states that, not only are lymphatics often the descendants of arthritics, but that they frequently will develop arthritism later in life.

In English and American medicine we find as lithemia the symptoms which French writers collect under arthritism, Rachford (71 & 72). Others, as for instance Whitmore (95), describe under lymphatism the status thymico-lymphaticus, or they recognize this latter condition only, as for instance Holt (34).

The majority of writers in the English language however fail to mention the diatheses altogether. This neglect is now beginning to be recognized by such men as Cameron (11), who deplores this fact and shows the importance of the diatheses on infant feeding and infant mortality.

Dutch literature is also rather wanting on the subject of the diatheses. Some, like Sthemann (90), refuse to recognize the revival of the ancient theory of the crases, whilst others like Gorter (26), take a standpoint somewhat between the French and German schools.

Ever since the memorable paper of Czerny (12), ten years ago, in which he first mentioned the name of "exsudative diathesis," a great many monographs have been published on the subject of the diatheses, and their importance in medicine has, by some at least, been fully recognized.

Some German authors, like Pfaundler (67), consider it a mistake to confound diathesis with dyscrasia, and the symptoms of a diathesis with the diathesis itself. He considers the special dispositions as independent, and he claims that we can observe many different forms of their combination and coincidence; he recognizes thirty-one free combinations which are without causal connections, and he thinks that isolated predispositions are rare.

v. Behring (4) confines the term diathesis to only a small part of the disposition. He considers a diathesis as an individual, congenial, often inherited condition, in which physiological stimuli cause an abnormal reaction and in which conditions of life, which are safely born by the majority of individuals, produce pathological conditions.

He makes the following divisions of the dispositions:

A. Idiopathic disposition (congenital, constitutional, histopathic or organopathic);

I. Idiosyncrasies (Congenital hypersensitiveness against agents of a definite type, which are normally innocuous);

II. Diatheses (congenital hypersensitiveness against

agents of the most diverse types, which are normally innocuous).

B. Toxopathic disposition (isopathic, acquired);

I. Anaphylaxes (isopathically acquired, humorigenous hypersensitiveness towards more or less innocuous agents of a definite type, which may be transmitted from the anaphylactic individual upon normal individuals through the anaphylactic antibodies dissolved in the blood);

II. Nonanaphylactic hypersensitiveness towards toxins (isopathically acquired sensitiveness towards poisons which are either histogenous or cytogenous and which cannot be transferred).

Klotz (40) makes the following divisions:

Eugenetic trophostabile individuals;

I. Congenitally normal infants who thrive on any food.

II. Infants with exsudative diathesis.

Dysgenetic tropholabile individuals;

III. Rachitic infants.

IV. Neuropathic or psychopathic infants.

V. Hypotrophic or hypertrophic infants.

Escherich, Heubner, Moro and others consider the status lymphaticus or lymphatism as a separate constitutional abnormality, whilst Klotz together with Czerny, Salge and others consider it only an extreme type of exsudative diathesis.

Sittler (85) states that exsudative diathesis is found so frequently in children nowadays that one might feel inclined to regard these symptoms merely as the physiological reaction to the unhygienic mode of living and the poor feeding now prevailing; still exsudative diathesis may appear only in some of the children out of a number who are living under the same conditions. According to him the diathesis is inherited from the mother principally.

Pfaundler (65) considers the diatheses of childhood, namely exsudative diathesis of Czerny, status thymico-lymphaticus of Paltauf, infantile arthritismus of Comby, to represent identical conditions, viewed only from different standpoints. He maintains that it is important to separate the cases according to the manifestations they show, whilst he considers the disturbances of the vegetative innervation and the general neuropathic symptoms as only loosely connected with the diathesis.

According to his hypothesis the seat of a disease is to be found in the affected tissues themselves, and the affected organs all come from the mesenchyma. The symptoms may appear in all kinds of combinations, and the causal connection of single symptoms may be doubted. Most likely the different diatheses may be divided into partial dispositions

which are truly inherited. At the bottom of these we will then find a functional inferiority of different organs of cell-systems, these can then, by functional tests, be shown to exist during their latency, as for instance a provocation of exsudative symptoms by overfeeding, or Moro's vasomotor test, which consists in a traumatic reaction to a dry injury with the v. Pirquet scarifier.

The Etiology of Exsudative Diathesis: Friedjung (23) is a strong believer in the theory of the organic inferiority as propounded first by Adler, who claimed that heredity does not consist in the transmission of a certain disease, but of one or more inferior organs. Constitutional differences are then the reason why infants may fail to thrive under the best of care, even with well-regulated breast-feeding, also why vastly different methods of artificial feeding may give either good or bad results in the hands of the same investigator.

Lederer (47) finds the cause of exsudative diathesis in the water-metabolism. He does not however find the water in the blood increased, but the retention of water in the tissues is very loose in exsudative diathesis, the absorption of water in these children is very rapid in proportion to their manifest symptoms, and this is due to faulty feeding. When these children are then suddenly placed on a sparse diet they will lose the superfluous water within a few days.

Steinitz & Weigert (89) have made repeated metabolism experiments on two infants and they have found a decreased nitrogen and fat metabolism. In their cases the weight-curve remained flat in spite of a sufficient supply of breast-milk and it only attained the normal under "allaitement mixte."

Riesel (85) found that out of thirty-five children whose bodily conditions were marked on their history-charts as fat or pastous, twenty-six had most of the symptoms of exsudative diathesis. These children were mostly brought to him because they were difficult to feed. At first they had usually been in poor condition, with bad colour, reduced panniculus adiposus and turgor. In the second half of their first year however they had gained more than normal in weight, they were shorter and broader than would have corresponded to their age, and they had not learned to walk until they were over eighteen months old. After the third year of life these children usually would be slim again. He also states that atrophy in early infancy and adipositas in late infancy are both due to exsudative diathesis, and they are observed in the same children.

Maillet (53) considers the subcutaneous tissue to be of the greatest importance for the nutrition as well as the defense of the body. Hypertrophy or atrophy of its anatomical elements will disturb this function, paralleling the general con-

dition of obesity, lymphatism or cachexia. These in turn influence the constitution, by weakening the defensive action of the subcutaneous tissue, so that lymphatism aids in localizing a given infection, whilst cachexia and atrophy favors its generalization in the body.

Mendelsohn (57) is an adherent of Bouchard's (9) theory of the retardation of metabolism and of humeral hypoacidity, from which all organs and tissues are in a state of functional insufficiency (eiopragia), in which they are oscillating between sickness and health. This then constitutes a disturbance of the equilibrium between assimilation and dissimilation.

Passler (63) has a rather remarkable though not convincing view of the etiology of exsudative diathesis. He finds this, as well as other related diatheses, to be always caused by chronic streptococcus infections of the buccal cavity, especially caries dentium and pyorrhoea. He claims that thorough cleansing of the mouth will have good results and will even cure eczema.

(To be Continued in June Issue.)

Salvarsan Substitute. Owing partly to the war, J. E. R. McDonagh has developed "Intramine," di-ortho-amino-thio benzene. The graphic formula consists of two benzene rings, one connected with H_2N (?), the other with NH_2 , and both, next to these combinations, with one valence of sulphur, the other sulphur valences being mutually united. He lays down the general principle that in acute diseases, oxidizing agents should be used first, reducing agents later, the order being reversed in chronic conditions. Metallic compounds generally act as oxidizing agents, non-metallic, like intramine, as reducing agents. He considers the spirochaeta pallida as merely the male phase of a protozoon with a complicated life cycle and to which he applies the name, leucocytozoon syphilidis. (Practitioner, March, 1916).

Ptomain Poisoning From Creamed Codfish. M. A. Blankenhorn, G. E. Harmon & Paul J. Hanzlik, Cleve. Med. Jour., Feb. 1916. About 80 patients and a number of helpers in Lakeside Hospital, were involved, all recovering, within 12-24 hours, some spontaneously, some after lavage. *Bacillus coli communior*, (no gas production), other saprophytes and some staphylococci were found, none strictly anerobic. The gastrointestinal symptoms were not directly attributed to infection by the microorganisms but to a base, isolated and producing stimulation of intestine, and uterus and fall of blood pressure. This base was considered a diamine, analogous to putrescine, cadaverine and histamin.

A New Method of Saving Life at Sea—The Fell Submarine Life Preserver.

GEORGE EDWARD FELL, F. R. M. S., Buffalo, N. Y.

Outside of the life boats, rafts and ordinary cork "life preservers" there is nothing effectual for those suddenly driven overboard, into stormy waters. The cork jackets may keep them above the water, but with a light sea, with white caps, or a brisk wind and driving spray, the best of swimmers, frequently succumb, and there is no chance for the poor women and children. They are doomed from the first.

The difficult problem of providing those who are subjected to such conditions, with a continual supply of fresh air, even when submerged in a heavy sea, has been clearly and practically solved. This apparatus provides an air supply, floating well above the water, and moving vertically with its fluctuating surface. It is well away from the person of the user and independent of his movements, working upon an entirely new method of flotation, being perpendicular in the water, and thus presenting a minimum cross-section of surface to the waves and combers. Every feature of this wonderful apparatus has been the subject of deep thought for many months on the part of its inventor and patentees, one of whom was a United States hydrographical engineer for many years and an adept in everything pertaining to lake and water problems. The simplicity and consequent practicability constitute a most important feature of the apparatus. It can be universally utilized. The name given to this apparatus by its inventors is,

The FELL SUBMARINE LIFE PRESERVER.

It is inexpensive, may be manufactured quickly in large numbers; easily utilized by those who cannot swim; is quickly applied to the person, and through the entirely original design of the air supply Float in a heavy sea way will not lose its protective respiratory features. The three essential features of this apparatus are the,

AIR SUPPLY FLOAT. AIR SUPPLY TUBE.

The air supply float is made of galvanized iron.

The air supply tube, of a long lived combination rubber tube or metallic tubing almost indestructible, may be used and may be obtained any where in the mercantile world.

FACE MASK.

The face mask is made of galvanized iron with the rim or face connection of a specially devised plastic material, originated after many experiments by the inventor. This substance has the property of slight agglutination when applied to the face, a feature of great value. It is not affected by the water. It does not become dry and brittle as thin shavings exposed to the air for months are yet plastic and apparently have not changed. A rubber air inflated mask that will fit most faces might be used for temporary purposes.

The mask prepared with the plastic material retains the contour of the face for a long time, and the owner of the apparatus may keep it in condition for years. I have used one for months and can attach it any time with the assurance that it will be impermeable to leaking.

This however is a matter of little consequence as provision is made for quickly emptying the mask, air-tube or air supply float of water that by accident or intention might get into them. The mask is quickly and securely applied to the face, by a cap from which "military belting" passes around. It is held tightly at the will of the wearer, so that the hands and arms are free to move about, and it is quickly released. If you are desirous of breathing the fresh air for a moment just press the lower edge of the mask out from the chin, or retract the chin, between seas and replace it quickly, without releasing the spring buckle. If the air float becomes completely filled with water, just tip it over with tip of extension within a foot of the water and blow through mask and air tube. The water will quickly flow out of the air float; release the float to upright position and respiration can be at once renewed. This is seldom needed.

AIR SUPPLY FLOAT.

Three types devised—one for the tourist, yachtsman, and general traveler on steamboats. This outfit weighs about nine pounds, is encased in a canvas sack of small dimensions and can be placed under the berth or hung on the wall.

Another form for use on war vessels, transports, and auxiliary vessels. Its righting weight is within its tube, in which for carrying purposes, is also housed the air supply and extension tubes, which are readily accessible. With a cork jacket applied, the marine or soldier with mask attached, takes the float in one hand and goes overboard with the assurance that he has a chance for his life never before possible in a sea way. A third type, quite light, for carrying, has a

water-weight, and will be useful at beaches and summer water resorts.

AIR SUPPLY TUBE.

This connects float and face mask. It is of a size to supply sufficient air for respiratory purposes, and of a length to permit the pure inspired air to overcome the vitiating of the air in the mask, air-tube, and air float, and it does this effectually.

BUOYANCY OF AIR SUPPLY FLOAT.

Constructed so that when the whole apparatus is filled with water from tip of extension tube away above the water, the air chamber, to air tube and face mask, it will not sink. In other words, even through carelessness, you cannot lose the outfit.

The detail of this valuable apparatus, would require more space than I can give here. Those who obtain it can readily grasp the simple requirements of practical usage, and acquire a confidence that will enable them to be quite comfortable in a sea way. If exhausted, they can sleep for hours, if the temperature of the water is not too low, and have the sea washing over them at frequent intervals. It is a great step in advance with possibilities most interesting and valuable. For instance:—

Food and water supply may be made positive through the upright, tubular principle, which permits a wide range of function. The gurgle call of the sea may be heard for a long distance. A white flag on the extension by day, red fire by night, a shark pike for marauders of the sea and other robbers, and many other novel ideas that have arisen.

To save human lives is the purpose of the invention primarily, and the hope of the inventor is that it may equal the record of that other boon to humanity, "Mechanical Respiration," which he gave to the world and has resulted in the saving of more than fifty thousand human lives.

209 Porter Avenue, Buffalo, N. Y.

Anti-Typhoid Vaccination. C. C. Burlingame, Fergus Falls, Minn., St. Paul Med. Jour., Jan. 1916, reports the results of 2200 vaccinations in the Fergus Falls State Hospital for the Insane. The vaccinations have been done in groups beginning in 1912. Since the fall of 1913, about three quarters of the inmates have been vaccinated. 22 cases of typhoid have occurred in all, and all among the unvaccinated, though the living conditions were the same.

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The Problem of the Independent Poor.

Our attention has been called to this matter partly by various articles in journals devoted mainly to hospital management. These, for the standpoint of the hospital, very properly insist on adequate charges for ward and private room services. Counting necessary expenses for thorough care in various directions, it appears that the actual, average cost, of a ward patient is at least a dollar a day, and of a patient in an unassuming private room, about double this amount. In some instances, the cost runs far above the average. For example, may be cited a ward case in which an interne calculated that the single item of iodoform (this was some years ago) came to more than the hospital was receiving for the entire care of the patient. Co-operation, on a large scale, does not materially reduce the cost, any more than the tax rate in a large city falls below that of a village. To a considerable degree, the cost of hospital service is high because of what is sometimes termed extravagance, meaning the routine application of rather more elaborate laboratory methods than would be employed in private attendance, the use of new drugs, liberal expenditure of time of assistants, sacrifice of petty economies for the convenience and pride of attendants, etc. But, it must be admitted that all these extravagancies amount, in the aggregate to a very meagre honorarium for professional services donated, and that they are justified, not only on this ground, but because the hospital exists not simply to care for the existing patient, but to establish high standards of professional work and to lead to further im-

provements of both the science and the art of medicine, in the interest of future patients, in and out of hospitals.

The economic problem is simple enough for the rich and equally simple for the pauper, using the latter term either in its extreme meaning, or as applied to the poor person who fully expects aid in an emergency. Here may be mentioned the peculiar popular attitude of perfect willingness to accept medical charity in any private form, but which regards as a disgrace the acceptance of the services of public physicians, paid by taxpayers to care for the poor, or of the shelter of an institution similarly provided. To our mind, whatever disgrace accompanies the acceptance of public medical care, ought to be manifested in exactly the opposite direction. For instance, to put the matter in personal form, we have for years contributed in the form of taxes, to pay the salaries of city physicians and of county hospital, as well as for the maintenance of city patients in various hospitals. Why should we not, in case of need, accept these services for which we have paid, pro rata, in advance, in the same spirit that we would accept insurance on which we had paid premiums? And, even if the individual has not paid direct taxes, he has contributed indirectly to the accumulation of wealth on which taxes are paid, and he may properly regard himself as insured in the same way, as a member of the community at large.

But let us consider the economic problem as it applies to the majority of independent persons, not in any sense of the pauper class, and who are forced by general opinion to maintain a scale of medical attendance and care in sickness and injury, far beyond that of the charity cases, deserving or merely helpless and demanding service on humanitarian grounds, though in this position by reason of definite economic sins of omission and commission. We speak glibly of the submerged tenth of the population. Probably at least 20% is submerged in the sense of being charity patients in any sickness which is absolutely disabling and of more than very brief duration. On the other hand, not more than 10% and probably not over 5% of the entire population is able to pay, without serious sacrifice, the exhaustion of savings or the incurring of protracted debt, for the medical and hospital services involved in a fairly severe illness, obstetric case or capital operation, graded on the basis of minimum private room charges.

In other words, we estimate that approximately 70% of the population has a family income of somewhere from \$1000 to \$2500 and that, under present conditions of scale of living and expense for routine necessities, the emergent expense of

a disabling medical or surgical condition, amounts to a catastrophe.

It is an axiom of sociology that any emergency which leads to temporary dependence upon charity of any form, is disastrous, because it tends to enfeeble self respect, and to lead to permanent pauperization. And it is obvious that any emergency which leads to more than transient inconvenience and financial crippling is to be avoided if possible. This is especially true of emergencies involving physical disablement because, either in the individual himself or some one directly involved in his financial recuperative powers, such recuperation is rendered doubly difficult.

The worst feature of this economic problem is that it seems impossible, under existing conditions, either to reduce the expense of hospital care to the ability of the average citizen, or to elevate the earning power of the latter to the necessary scale of hospital and professional charges. In discussing all such problems it must be remembered that the most extreme application of socialistic principles would result only in bringing everyone to a financial basis which no one would consider worth while, and that this equalization of wealth would be merely temporary.

There are, some factors of the problem that contain a hint as to its solution. First, most hospitals that are in any sense public, are already supported to some extent by public taxation. Secondly private benefactions are, in an informal and voluntary way, graded according to the principles of the income-tax, involving the broader principle that greater wealth than the average maximum is derived from the community at large and is fairly subject to taxation for the benefit of every member of the community. Thirdly, the Catholic Church maintains and, so far as possible, enforces, a standard of benevolence that often seems cruelly high to Protestants but is justified when one considers the varied forms of benevolent institutions conducted for the benefit of the persons contributing, whenever they have real need of charity at their hands. Fourthly, the principle of insurance against the need of professional service and institutional care is already in operation along many private lines, though universally under such conditions as to receive the denunciation of the medical profession. This denunciation is based on two well established grounds: unfairness in selection of medical attendant, and inadequacy of the insurance fee, whatever it may be called, these two factors resulting in the third evil that the care furnished is usually of low grade.

The principle of insuring against emergencies, individually disastrous, but by the law of chance representing an

average expense of comparatively small amount, is fully established along various lines. It would seem that a careful estimate of the chances of sickness and the like would render feasible an insurance of hospital care in any emergency, on a basis that would be equable alike to hospital and patient. There are good reasons, both discernible in advance and demonstrated by English experience against extending this insurance to cover actual professional services. Briefly stated, these are the practical difficulties of providing for free choice of attendant, particularly when special skill is required, and for covering the proper gradations of fees according to professional skill, prestige and the like. As it has been the established custom of the medical profession for many generations, to grade its fees according to the means of the patient and to consult his convenience as to the time of payment, the apparent solution of only half of the problem, really solves the whole problem in its most exigent form.

Logarithms—A Neglected Help.

If the physician engages in quantitative work of any kind, such as the calculation of calories from a diet list, the actual amount of uric acid, urea etc., in urine, the the total fat in faeces estimated from a small amount in a sample which is not usually an aliquot part of the entire discharge, the combining quantities of fat and alkali in soap, or if he has to translate pounds and ounces into grams, he has many problems in multiplication, division and proportion. As a business man, he also has similar problems to consider, as the calculation of a tax from rate of so many dollars and cents per thousand; interest for odd fractions of a year; area and capacity of rooms, barns etc. Recently, we have been interested in estimating the practical investment value of life insurance as compared with compound interest at a bank. On inquiry of several acquaintances in the banking business, we learned that no tables were available showing the aggregate amount of a given sum at a certain rate of interest, compounded at stated intervals for a term of years. We readily found, however, in an advanced algebra, the following formula: A (aggregate amount) $= (1 \text{ plus } r)^n$, p being the principal, r the interest, n the number of years, if the compounding is done annually. If interest is compounded semi-annually, the formula becomes: $A = P (1 + \frac{1}{2}r)^{2n}$.

This looks simple enough but when one raises 1.02 to the 40th, 39th and successive diminishing powers, and multi-

plies this by dollars and cents in two figures each, the amount of arithmetic work is appalling.

We would scarcely go so far as to advise the physician to use a table of logarithms in calculating the totals in a twenty-dose metric prescription or in a 24-dose apothecary's prescription but for any multiplication or division requiring the use of three or four figures in each member, especially when a mass of similar problems are presented, much time may be saved by this method.

We need not here enter into the theory of logarithms but would merely advise a brushing up by reference to the old high-school geometry and trigonometry or to an advanced arithmetic or algebra.

Engineers have a wonderful little instrument called the slide in which a scale of equal parts corresponds to another scale which increases proportionately to the logarithms of the numbers of the former. By this instrument, especially in its more elaborate forms, pretty nearly every problem involving multiplication and division can be performed mechanically, with a chance of error of about 1: 1000. The rate of flow of streams, the capacity of all sorts of containers, the determination of circumferences and areas from diameters, the conversion of one set of units into another and many much more astonishing problems in astronomy, engineering and other applied mathematics, can be gotten by this instrument. Unfortunately, to secure sufficient accuracy, a somewhat expensive instrument is necessary and considerable skill is required to work it accurately. In fact, a description of its many uses makes up a good sized book.

Obligations to Advertisers.

We wish to impress on our readers that this and practically every other periodical, medical or otherwise, monthly, weekly or daily, is largely supported by advertising. For instance, at present prices, the purchaser of a penny newspaper gets rather more than a cent's worth of paper at wholesale rates. It will thus be seen that, ultimately, current subscription rates for periodicals in general, can be maintained only if the reader responds to the advertisements. On the other hand, we wish it distinctly understood that in no case do we bring the pressure of the negative phase of this argument to bear upon prospective advertisers. So far as possible, we support our advertisers by asking a reasonable preference for them. In no case, do we use any methods that may work in any way to the detriment of non-advertisers. Under these circumstances, we feel that it is fair to

ask that if, in any case, the reader prefers to deal with a non-advertiser, he should call the attention of the latter and of our advertising manager, to the benefits of medical journal publicity.

New Method of Addressing Journal.

Beginning with the April issue, we began addressing the Journal by a stencil system. Owing to unavoidable delay in securing the machine after the stencils were made, it was necessary to use an old machine so that the printing was poor. Even so, time was saved as compared with other methods which have been used in the past. Beginning with the present issue, subscribers are requested to notify us of errors in address of any kind, although we may not be able to correct minor errors at once. Individuals and societies having regular mailing lists are referred to our advertising columns.

BOOK REVIEWS

Books mentioned may be inspected at and ordered through this office. So far as possible, books received in any month will be reviewed in the issue of the second month following.

The American Year Book of Anesthesia and Analgesia.

Under the editorship of F. H. Mc Mechan, A. M., M. D., will shortly be issued by the Surgery Publishing Co. of New York.

This will comprise 352 pages, 8 1-4 x 11, profusely illustrated, price \$4. The various topics reviewing the advances in 1915, will be treated by a corps of able writers.

Digest of Comments on the U. S. P. & N. F. For 1914. by Martin I. Willbert. Gov. Printing Office, Wash. U. S. P. H. S., Hygienic Laboratory, Bulletin No. 105. 516 pages, paper cover, 50 cents.

Publications of the Buffalo Historical Society. Vol. 19, 1915. Edited by Frank H. Severance, Secretary, published by the Society.

This includes a biographic sketch of the late J. N. Larned by John B. Olmstead, extracts from and a bibliography of his

writings; a tribute to the late Henry A. Richmond by Henry R. Howland; articles on the early newspapers of Buffalo by J. C. Brayman, Joseph Stringham and Frederick J. Shepard and a bibliography of the Periodical Press of Buffalo by Frank H. Severance. The last mentions this Journal, the Medical Press of Western N. Y. and Das Medicinisch Chirurgisches Correspondenzblatt, the last two discontinued, as the medical publications of Buffalo.

Gould's Practitioner's Medical Dictionary. Third edition, revised and edited by J. E. Scott, M. A., B. C. L., M. D. of N. Y. xx plus 962 pages, flexible cloth, round corners, marbled edges, \$2.75.

Nearly 71,000 terms are defined and pronounced, including modern additions to the medical vocabulary. 400,000 copies have already been sold of Gould's medical dictionaries, averaging more than one copy apiece for every physician of English-speaking countries. This fact and the well-known skill of Dr. George M. Gould and the reviser in compilation of this sort, are the only evidence necessary as to the high order of the work.

The Medical Clinics of Chicago. W. B. Saunders Co., Philadelphia, Bi-monthly, \$8. Mch. 1916, Vol. 1, No. 5. 220 pages.

Jas. T. Case's clinic on Roentgenologic Aspects of Intestinal Stasis is the most striking article of this issue though the others are of great practical value.

Transactions of the American Surgical Assn. Vol. 33, 1915, edited by Dr. John F. Binnie, Recorder, Kansas City, Mo. 825 pages, illustrated.

This contains a large number of interesting monographs, covering various phases of surgery and borderline branches. The review of the literature on fractures and the report of a committee for collective investigation of this subject, deserve special attention.

Hand Book. of General Orders, Instructions and Rules, for Field Employes of the Bureau of Medical Inspection. Issued by the Dept. of Health, Chicago.

This is a small pamphlet of 182 pages, not only useful as a guide for those for whom it is especially intended, but serving as a model for other cities. It might be used to advant-

age by those interested in preparing themselves for service of this nature.

Social Travesties. And what they cost, by Dr. D. T. Atkinson, Dallas, Texas, published by the Vail-Ballou Co., N. Y. 152 pages, \$1.00.

This book is intended particularly for lay instruction and deals with the venereal peril, and allied social topics, advocates early instruction on these matters and the enfranchisement of women.

Progressive Medicine. Edited by H. A. Hare and L. F. Appleman, Philadelphia, published by Lea & Febiger, quarterly, \$6.00. Vol. 19, No. 1, Mch. 1916.

This volume deals with surgery of the head and neck and the thorax, infectious diseases, including acute rheumatism, croupous pneumonia and influenza, diseases of children, rhinology, laryngology and otology. The respective contributors are: Floyd M. Crandall, Chas. H. Frazier, Geo. P. Mueller, John Rurah, Truman L. Saunders, Geo. P. Wood.

Transactions of the Am. Assn. of G. U. Surgeons. Vol. 10, 1915, published for the association by Frederick H Hitchcock, 105 W. 40, N. Y. (Sec. Richard F. O'Neil, Boston). 339 pages, illustrated.

This contains a large number of articles on various branches of the specialty.

TOPICS OF PUBLIC INTEREST.

The Eight Hour Day. Wm. Gordon Jamison, Industrial Economist, Mch. 22, holds that this is economically impossible without curtailing productiveness to a serious degree and that it is really a demand for a wage-scale which increases pay for overtime, not a literal demand for an actual 8-hour day for the purpose of increasing opportunity for self-improvement, home life, etc. The article is obviously from a partisan standpoint, but it should be seriously considered on its merits. The main issue is one which should depend largely on economic statistics and hygienic fact. We believe that there is no question that 8 hours of intense labor, either physical or mental, is the maximum of human endurance, with the ordinary allowances of a brief lunch recess, Sun-

days and a short annual vacation. But very few men actually work under these conditions. The experience of the medical profession, for example, and that of mankind generally, up to very recent times, indicates that most men can work a good deal more than eight hours a day without injury, according to existing standards, but it should be considered, not merely academically, but from the practical scientific standpoint, that the regular reduction of hours of labor might result in mental, physical and social improvement, increased longevity, even in economic improvement in the way of increased production, far beyond our conceptions of human possibilities. Certain manufacturers have declared that the reduction of hours of labor, without reduction in wages, has paid in increased productiveness, simply because of lessened fatigue and greater satisfaction. This matter should be studied impartially, unsentimentally, scientifically, for different kinds of work.

So far as wages are concerned, we hold that each kind of labor should receive the maximum possible, according to its actual value, except that, at the minimum of value, due regard should be given to the sociologic factors implied. In one sense, we agree with the cynical dictum that no man is worth more than a dollar a day up to his head, but it pays society to see that he does receive more, in order that his children, if not himself, shall have a head, not to mention a healthy body, that is worth more to the community than a dollar a day. The maximum possible wage can be easily determined automatically, in dealing with labor problems on a large scale. So long as the increase of wage results in corresponding greater productiveness, so long as it does not **necessarily**, result in general hardship affecting, among others, laborers of essentially the same grade and kind of work, by increasing prices of necessities unduly, so long as the recipient of the increased wage finds that it is a genuine increase and not counterbalanced by a compensatory reduction in the purchasing power of his money, wages should be increased. But we cannot get away from the fact that the real unit of value is the average day's work, not the dollar. Hence if the laborer finds that his increased wages are balanced by diminished purchasing power of the dollar, and further finds that potential employers have difficulty in getting enough money to keep him employed—there being a pretty definite amount of actual currency in the country—it is obvious that, even from the standpoint of his own interests, his wages are too high.

There is a further factor to be considered in regard to the eight-hour day, which may be expressed in the terms of a personal preference. We would rather work five days a

week, approximately ten hours a day, and have a whole day off, so that the leisure could be used to get out into the country, than to work eight hours a day for six days. And we would rather work ten hours a day and six days a week and let the extra days accumulate into a vacation that would be still more available for rest and recreation. From this standpoint, even unemployment—and we understand that the average period of unemployment is about two months a year for many trades—is not a bad thing, provided the workman really gets his just wage, is provident enough to distribute it over the entire year and makes good use of his leisure. But, if the laborer prefers steady work, at eight hours a day, with his leisure evenly distributed in short daily periods which do not allow him to get far away from his home, his preference should be respected. It is scarcely necessary to add that, in no case should the hours be protracted so as to interfere with health and recuperative powers.

Proposed Telephone Merger for Buffalo. The proposition, obviously strongly favored by both companies, to merge the Federal and Bell systems is one of considerable importance to the medical profession. Theoretically, a single service is preferable and more economic. Practical experience, however, has shown that good service, reasonable rates, and wide spread use of telephones on account of these factors have been achieved only by competition. For example, both telephones for unlimited service cost \$10 a year less than formerly for 500 messages on a single line. In the aggregate it has paid Buffalo to support the Federal system simply for the improvement, cheapening and extension of the Bell service secured, if the Federal had never been used at all. It has paid especially, those who have benefitted by the competition, without themselves incurring the expense of a double service. And, because so many have realized this, the benefit is about to be withdrawn. This does not by any means imply that the Federal has been useful merely as a competitor. It has introduced the vastly superior manual method of connection—although this merit is not appreciated by those who would rather spend two hours getting someone else to do something that they could themselves in an hour—and, like the old Edison exchange, it means business instead of social intercourse and is thus more promptly available. In one very important particular, two services, of any kind, even if paralleling each other, are an advantage over one, as they insure almost absolutely against the occasional interferences and failure which are inevitable in a single service. Many persons feel that the Public Service Commission will protect them against a rise in rates. This feeling is not justified by

past experience as with railroads. Scarcely any firm or individual is so contented or so lacking in mental ability that he cannot put up a plausible argument that he is not getting enough for his services. The writer, who is neither a business expert nor eloquent can do so. Any large corporation can establish this contention by its ability to employ skillful pleaders. Moreover, past experience in other cities, Baltimore, for instance, shows that lack of telephone competition after it has been enjoyed, is followed by a return to the high rates of single service cities.

The High Cost of Gasoline. This matter concerns the medical profession in an economic way almost exactly comparable to the threatened increase in telephone rates. The steady increase in price of gasoline, by Standard and independent firms alike shows, first of all, that nothing is to be hoped for from the putative independence of the latter. The persistent increase in the face of popular protest and government investigation and talk of legislative control, means either what the small boy does when he puts his thumb to his nose and wiggles his fingers—and remember that the addressee is not merely the “public” but the government—or it means that the oil producers are absolutely sincere. The fact that gasoline reached its minimum for many years during the period of its maximum use, and when any shortage of supply such as is claimed could have been easily foreseen, is significant. Equally significant are the enormous dividends, in some cases stated at 100% declared. Statistics that have not been denied show that exportation has not increased but rather diminished, comparing 1915 with 1914. Semi-official government inspection is stated to show not only no failure of the supply in the ground, aside from the estimate that present sources will be exhausted in 27 years, but an actual increase in stores above ground. The prospective increase in demand is just what could have been calculated in advance from the curve of increasing automobile sales. It costs relatively less to pump and refine an additional amount than that needed for past consumption.

We do not need to save oil products for posterity. Each generation has been able to meet its own needs. A combustible engine fuel can theoretically be prepared from almost any source of carbon and hydrogen. Cellulose is abundant in quick growing shrubs and herbs, in waste of saw mills, in various forms of domestic and agricultural waste. In almost any form, it is possible to convert it into methyl alcohol; it is not asking too much of the future to make this chemie conversion economic nor to secure in some way the explosion of relatively non-volatile oil constituents. Natural gas, with

or without compression beyond a degree to secure delivery, is already available for internal combustion engines, and liquid, volatile fuel can be prepared from it. This supply is of course exhaustible, but it will postpone for some years the prophesied failure of gasoline supplies. The enormous increase by "cracking" of the proportion of volatile material in crude mineral oil is already a practical fact, but has been, apparently to some degree controlled by the oil industries.

It has been announced that a cheap and practical apparatus has been perfected to secure electric power from the atmosphere—or ether. At any rate it is inconceivable that some method of delivering electric power for either stationary or locomotive engines cannot be achieved in the near future from the perfection of existing devices.

Very recently, we have been assured by an expert chemist that he has a substance which, added to ordinary kerosene, will enable its use in an ordinary carburetor. Still more significant is the fact that the Standard approves this discovery. But, of course, it is just as easy to raise the price of kerosene as of gasoline.

Let us not lose sight of the essential underlying principle, which applies not so much to gasoline as to other things, bread for example, which are more literally necessities of life. The problem, particular or general, will not be solved till the government recognizes the principle that taxation, not of course meaning a fair profit on any business, is strictly a function of government, not of private individuals or groups of private individuals. This principle has a corollary, the idea that it is the duty of government to limit prices of any actual economic necessity. Whether it does so through commissions—which have failed largely in the past—by establishing maximum prices which usually allow too large a margin beyond cost and fair profits, by taking certain businesses into its own hands or by other means, is not important. The general principle stated must be clearly enunciated before anything can be accomplished.

Death Rates and Expectation of Life. The Bureau of the Census states that the expectation at birth is 49.9 years for males, 53.2 for females. 4.975% of males die in the first month, 12.6% in the first year. The corresponding percentages for females are 3.894 and 10.46. Owing to the dangers of childbearing and special dangers connected with the reproductive organs, the chances of reaching 70 are almost exactly the same for the native male at the age of 42 and for the female at 22. Nearly 4/5 of violent deaths occur among males, and these form about 7% of all deaths, explaining the greater average longevity of women. Rural

death rates remain somewhat higher than urban, though, we believe, the reverse is the case of N. Y. State.

The N. Y. State Anti-Narcotic Law. An attempt is being made to render this still more stringent, imposing further and still more impracticable obligations on physicians. The State Medical Society hopes to have the whole matter referred to a committee which will draft an improved law under medical advice.

Russian War Losses are said to have been 2,542,639, including killed, wounded, missing and prisoners, for the year 1915. This agrees fairly well with the estimate up to May 31, 1915, of 3,780,000.

Filtration Plant for Batavia. The State Conservation Commission has granted permission to build such a plant on the banks of Tonawanda Creek. (Note. This creek is rather highly polluted and it occurs to us that Batavia might better use wells, seek springs or even go to Lake Ontario).

University of Buffalo Reunion. About 200 alumni, including 50 from Buffalo on a special train, held a banquet in Rochester April 13.

Leroy Water System. A reservoir has been made at Union Corners, 5 miles distant, and 200,000,000 gallons impounded. Pumps have been entirely discarded and the standpipe is full to within a foot of the top.

Antiseptic Eggs. Oscar Riddle in the Pop. Science Monthly, describes a method of preserving eggs by which the hens are fed urotropin, "less than a gram a day" being given in capsule. Even this relatively large dose is said to be harmless.

Wood Alcohol Death. Relatively to the literature and legislation on the subject, deaths and blindness from wood alcohol are comparatively few. An unusual fatal case is reported from Bradford, April 15. A child drank a cupful which her father had poured out for some domestic use.

Price Cutting. The American Fair Trade League, 200 5th Avenue, N. Y., asks us to say a word against this evil. The Medical Profession, as consumers, naturally wishes the lowest price possible and, as workers, have in the majority of instances, maintained the minimum scale of prices compatible with existence. In any business, a price that does not allow

fair wages and fair profits cannot be maintained. Often it signifies the deliberate assassination of a competitor and thus precedes a future and often permanent increase of prices. Thus, the ethics of price cutting depends on an absolute question of fact in each instance. Is the price fair or extortionate? Is a particular brand of goods really of a supposed quality or is it sold at a fancy price simply by an arbitrary ruling of the manufacturers, and is its alleged superiority merely one of prestige?

Examination of Candidates for U. S. P. H. S. will be held May 31 in Washington, and at a number of Marine Hospitals (selection being usually to suit the convenience of applicants). Applications should be made immediately to the Surgeon, Public Health Service, Washington.

The Samuel D. Gross Prize will be open for competition till Jan. 1, 1920. This prize awarded every 5 years, upon a subject in surgical pathology or practice, not over 150 printed octavo pages in length. Essays must be submitted typewritten, in English, and the author must agree to publish in book form. The prize is \$1,500.

Symposium on Quarantine in Infectious Diseases. Addendum. Dr. Geo. L. Nicholas of the Dept. of Health, N. Y., wishes to correct the statement that the stool and urine examined for discharge from quarantine after typhoid should be taken "Not later than the tenth day after temperature becomes normal." Exactly the reverse should have been stated, namely that the samples should not be taken earlier than the tenth day.

Importance of Good Roads to Physicians. The American Highway Assn. of Washington, emphasizes this point, stating that most of the medical students who complete their courses, practice in the rural districts. This statement is not now quite accurate. Rather more than half of the population resides in cities, and the physicians are fewer proportionately, in the country and small towns. However, the main contention is correct, and it interests physicians without much regard to their location. For instance, a few days ago, we were summoned to a small town, some 60 miles from Buffalo. The case was urgent. If there had been good roads continuously, we could have seen the patient in three hours and could have returned by daylight. Most of the distance, there were good roads, but a road is no more passable than its softest mud puddle. We had to take a train, lose time at junctions, and the result was that we reached the patient

13 hours after the call, had to make examinations by artificial light, had a very brief sleep, arose "in the morning while it was yet night," and, at that, an office hour was encroached upon.

We stand, as a matter of military and peace preparedness for good roads connecting all towns of any considerable population. But, under existing circumstances, we feel that it is best to limit construction to brick and cement or some other impervious pavement. Macadamized state roads are, at times and places, compounds of oil or tar and flint. They are thus destructive of tires, dangerous and dirty. Their upkeep is relatively high, their life short, and they cannot be kept in good condition at all times. Thus, we feel that permanent improvement of highways should be limited to impervious pavement and that, otherwise, instead of laying short stretches with macadam, shale, sand and natural, round gravel should be used to render fairly good service in wet weather and far safer in dry weather, several times the mileage that can be macadamized for the same expense. Also, for the present, we believe that instead of attempting to distribute good roads fairly, permanent construction should be concentrated so as to render certain through routes passable for the whole distance.

This association offers 166 prizes of from \$5 to \$500 for photographs illustrating, positively or negatively, the value of good roads.

The Passage of the Immigration Bill, with insistence on an educational standard, is an important item of peace preparedness. Race prejudice has nothing to do with the matter. The interests of the colonial American and the man just off the ship, and expecting in good faith to become the ancestor of an American family are identical. Illiteracy is admittedly a problem, in a very practical sense, because lack of ability to acquire information is a large factor in poverty, disease and crime. The illiterate may have just as good a moral sense as the literate, but he is more likely to be led into crime through ignorance and by furnishing an easy victim, to tempt to crime on the part of others. For example, juvenile delinquency has, in many cases, been traced to the one item that shrewd children of illiterate foreign parents have consistently trained the latter to believe that the laws of the U. S. forbid the punishment of children. Of course, the educated criminal, civil or political, is more dangerous than the illiterate, but the educated criminal is an exception and can be dealt with in other ways. Moreover, we may just as well admit that our country is, on the whole, sufficiently populated. We need waste areas. An abundance of land means

wealth, especially wealth of animal products, and we have already reached the point at which meat and animal foods generally are as costly as in most European countries in peace times. From one standpoint, we would like an abundance of cheap, illiterate, exploitable labor. But it requires no argument to show that from a broader standpoint, nothing can be worse for our ideals, self respect and development than depending on a constant influx of low grade labor to do our dirty work. The war is giving us an opportunity to assimilate our present population and to arrange our economies according to a normal increase of native population. It is none too early to pass laws aiming to hold immigration at something like reasonable figures.

The Rockefeller Foundation reports the expenditure of \$1,342,561.11 during 1915. \$570,559.71 was on account of new buildings for the Rockefeller Institute for Medical Research; \$22,404.17 for what may broadly be termed medical benevolences, including eugenics, etc.; the remainder mainly for religious and educational purposes. While one should not look a gift horse in the mouth, we suggest that medical philanthropy of one kind or another should be maintained as nearly as possible at the total for the year past, and that a very worthy philanthropy would be the reduction in price of petroleum products.

Exaggerated Losses in War. According to a press clipping, said to be on the authority of the French Ministry of War, the losses of Germany alone, up to May 31, 1915, (10 months) totalled 4 millions—1,630,000 killed; 1,880,000 wounded; 490,000 prisoners. The estimate up to Nov. 22, 1915 (nearly 16 months) had shrunk to 3,700,000 of which 1/5 were estimated killed. An estimate by the British War Office, based on official lists published by the German government, up to April 10, 1916 (20 1/3 months) reduces the total to 2,730,917, of which 681,437 were killed. If the last figures are approximately correct, it will be noted that the first estimate was about 3 times exaggerated, proportionately. It is interesting to know that, at the rates observed in the U. S. the deaths for a country the size of Germany (65 million approximately) would amount to very nearly 100,000 a year for males of military age, 20-45. For the period of 20 1/3 months, they would be about 170,000. In other words, the military deaths are about 4 times the normal but, of course, they occur in only a part of the males of military age, and in a part less likely to die than the average, while the normal deaths continue in the part of the male population not in the army and, indeed, are probably slightly increased by the general stress.

However, without in any sense minimizing the horrors of war, these figures show that the popular conception of "killing off" an enemy, of depopulating a country, and of facing, after war has ended, an actual lack of men for productiveness, including procreation, is very greatly exaggerated.

Centenarians. Mrs. Mary Hickey of Binghamton, died on March 5, aged 108. Until the last week of her life, she occupied herself piecing quilts, without spectacles. Patrick Grogan, a soldier with Scott at the taking of Mexico City 1847, died March 9 (place not stated) aged 101. Cyril McGee died in Moira, N. Y., March 1, aged 106.

College Merger. Notice has already been made of the proposed merging of the Medico-Chirurgical College of Philadelphia with the University of Pennsylvania. It is now proposed to include Jefferson.

Surgeon General Blue Asked to Resign. Senator Works of California has introduced a resolution demanding that Dr. Blue resign the presidency of the A. M. A., on the ground that this organization is conducting a campaign for certain medical changes and that, therefore, a government official should not serve as an officer. It is proper that the organized medical profession should exert its influence in a reasonable degree to secure legislation and execution of laws for the public welfare. It is practically impossible that this influence could be exerted in a harmful way and, even if the political personnel of the government does not agree with medical opinion as expressed by this organization, it should recognize it as a valuable conservative guide. If the A. M. A., as an organization, attempted to exert an influence contrary to that of the profession itself, this fact would be apparent, and the influence would be nullified by the spontaneous protests of the profession itself. Grant that the medical profession may be somewhat biased in its opinions as to what the government should do in medical matters, it is, on the whole sincere and rather better able to form an opinion than those not qualified as physicians. The same may be said of the legal, engineering, teaching and any other profession. It may further be said that the President of the A. M. A. presides, that he has almost no influence in what its enemies may term the politics of the A. M. A.—even less than the influence of a majority of the fellows and members, and decidedly less than any individual who chooses to take the time and spend the money to be a "kicker." The election of Dr. Blue to the presidency of the A. M. A. was not only an honor to and appreciation of an individual physician. It was also a def-

erence to the U. S. Government as personified by the head of one of its great medical services. The personal honor can in no way be affected by the forced resignation of Dr. Blue, who can, at most, miss its public expression by appearing before an audience, and who would be spared several days of lame wrist and crushed hand, following the annual reception. On the other hand, the somewhat ungracious refusal of a token of respect paid by the medical profession to the Government itself, especially at this late day, seems exceedingly unwise.

The Bureau of Laboratories of the Buffalo Dept. of Health will occupy the premises 484 William Street, formerly used for Police precinct No. 8. This bureau is a unification of the work in bacteriology, pathology, milk analysis, clinical diagnosis, etc., and will be under the supervision of Major Wm. G. Bissell, M. D. Two expert chemists have been added to the staff, Roy Futzer and Warren Gabriel. The building has been renovated in its interior and equipped so that this Bureau will be equal to any similar municipal enterprise in the country.

The Alumni of the University of Buffalo held a banquet in Elmira March 26. About 60 were present, including representatives of the Faculties from Buffalo.

Abortion Case. The daily press report a charge of criminal abortion against a prominent physician in Western N. Y. In accordance with our policy, we decline to give further publicity to the matter till the trial has decided the guilt or innocence of the accused.

Transfer of authority at Saratoga Springs. The legislature has passed the bill transferring the work of the Saratoga Springs Reservation Commission to the State Conservation Commissioner, Mr. George D. Pratt, of Brooklyn. The bill has gone to the Governor for signature. It is to be hoped that Mr. Pratt will appoint a deputy to represent him at Saratoga Springs who will be a good business man and able to further the development of the spa on the lines adopted by European experts.

Ascaris in Tonsil. A. B. Middleton, Clinical Jour., reports the case of an anaemic girl of eight with enlarged tonsils and adenoids. The right tonsil ruptured when the snare was tightened and a female ascaris, $1\frac{1}{4}$ inches long escaped. It had been in a cavity in the tonsil, possibly for years.

CORRESPONDENCE.

This department is intended for the presentation of news and views not coming within the scope of other departments, and particularly to afford opportunity for discussion and criticism of views elsewhere expressed.

American Association for Labor Legislation.

131 E. 23d St., N. Y. City, Feb. 1, 1916.

Editor Buffalo Medical Journal:—

Dear:—You have doubtless noticed with interest, and possibly with concern, the news in the daily papers concerning the introduction of a bill for compulsory health insurance into the legislatures of New York and Massachusetts.

In brief these bills provide that all manual workers and all those earning less than \$100 a month shall be insured, and that the cost of the insurance is to be borne equally by the employer, by the employee, and that the state is to contribute one-fourth of the total. For a total contribution amounting to three per cent of the wages, it is estimated that the insured can be provided with medical care (including medical, surgical, nursing attendance, hospital treatment in necessary cases, and the required medicines and surgical supplies), a cash benefit for a maximum of twenty-six weeks of sickness, and a small funeral benefit for the family, should the wage earner die.

When you go over the sections of the enclosed pamphlet relating to medical care, you will notice the lack of specific detail. This apparent omission arises from the policy of the Social Insurance Committee to postpone drafting these administrative regulations, so closely affecting the medical profession, until the committee could benefit by the advice and co-operation of the profession itself.

This Committee has especially refrained from any attempt to decide what the basis of remuneration, or what the rate of compensation should be, because it considers that these technical questions can best be worked out by physicians themselves. However, the Committee considers that the 100 per cent collections for all insured patients treated and the possibility of putting all practice among wage earners upon a business basis will materially improve the financial status of many practitioners.

The co-operation of the medical men has been particularly welcome. The American Medical Association has been one of the foremost in offering its co-operation, and has appointed a special committee, as you doubtless know, consisting of Dr. Alexander Lambert of New York City, chairman; Dr. Fred-

eric Cotton of Boston; Dr. Henry B. Favill of Chicago. Various local medical bodies have also appointed committees to study the subject, to make recommendations, and to confer with the Social Insurance Committee of the Association for Labor Legislation, New York City.

This committee believes that through cordial co-operation it will be possible to frame regulation which will be satisfactory both to the layman and the practitioner.

Will you not do your part in urging the profession to study the subject and to co-operate?

Very truly yours,

JOHN B. ANDREWS,

Secretary.

The Study of the Internal Secretions.

Editor Buffalo Medical Journal:—

The increasing appreciation of the importance of the glands of internal secretion and their influence upon the etiology as well as the treatment of many disorders, has made the subject of unusual interest to many physicians. It has been suggested recently by several American physicians that it might be well to form an **Association for the Study of the Internal Secretions**; and it is desired to know whether there is sufficient interest in this matter to warrant its further consideration.

No effort has yet been made to form such an association; but any physicians who are interested and would welcome the establishment of a community of interest embracing some or all of the points just mentioned, as well as others which cannot be enumerated for lack of space, are requested to send their names and addresses on a postal card to the undersigned at 715-19 Baker Detwiler Bldg., Los Angeles, Cal.

HENRY R. HARROWER, M. D.

Dr. A. L. Benedict,

Dear Sir:—

A sphygmomanometer was left in our store recently, and we have been advised by a doctor to notify you so that you could make the fact known through the Buffalo Medical Journal.

Yours truly,

OTTO ULBRICH CO.

OUR CONTEMPORARIES.

We do not usually quote from periodicals which every member of the profession should have, but we take occasion to call attention to the excellence of the Bulletin of the State

Health Dept. and of the Buffalo Sanitary Bulletin. These are mailed free to every physician of the corresponding governmental units, and should be read and studied. The latter, quite aside from its medical interest, sparkles with epigram and wit. For instance: "To CURE is the voice of the past. To PREVENT is the demand of the future" "What effect does an amber necklace have upon goitre? The same effect as a moss agate cuff button." We note that Buffalo last year had a tuberculous mortality of 709, the total deaths being 6,853 (14.83: 1000)—almost exactly 10% of all deaths. Nearly all similar statistics show that tuberculosis is diminishing at almost exactly the same rate as the total mortality. For this reason, some believe that it is not diminishing at all. Speaking of the amber necklace, however, some of the old superstitions really represent accumulated empiric experience, along climatic, therapeutic and other lines. Thus we believe that a reasonable credulity—as to results, not method of operation—is wise, although in this particular, we may say that amber necklaces are not included in our armamentarium.

The Indianapolis Medical Journal, March, pays a well deserved tribute to the three Austin Flints, the first two of whom were editors of the Buffalo Medical Journal.

Clark Bell, the founder and editor of the Medico-Legal Journal has retired, and is succeeded by Dr. Alfred W. Herzog. The journal will, in the future, appear monthly instead of quarterly.

SOCIETY MEETINGS

Brief reports and announcements of meetings of societies of Western New York, and those of general scope, are requested from Secretaries. Copy should be on hand the fifteenth of the month. Full transactions will be published at cost of composition.

DOCTOR: Is your Society properly represented here? If not, please bring our standing announcement to the attention of the members.

The National Association for the Study and Prevention of Tuberculosis will meet in Washington May 11-12. Papers, technical and sociologic, and clinics, will be given. A general invitation is extended. Those wishing to join the Association should apply to Dr. Charles J. Hatfield, Executive Secretary, 105 E. 22d, N. Y.

Rochester Academy of Medicine. Section IV. met April 12, Dr. Geo. W. Goler presenting a paper on Prophylaxis of Typhoid Fever; Dr. Joseph R. Culkin on Diagnosis and Prognosis of Typhoid.

A special memorial meeting in honor of the late Dr. John O. Roe, was held March 29. The President, Dr. Joseph R. Culkin, gave an introductory address; Dr. Eugene H. Howard read a memorial prepared by a special committee; Dr. Bradford A. Richards read a paper on the Scientific Contributions of John O. Roe, and Dr. Wendell C. Phillips of N. Y. came especially to pay a tribute to Dr. Roe. A portrait of Dr. Roe, presented by his family, was accepted by the Academy. Dr. Richards's paper was illustrated by lantern slides of some of Dr. Roe's results in rhinoplasty.



DR. JOHN O. ROE.

Cut loaned by Rochester Post Express.

Eighth District Dental Society of N. Y. The annual meeting was held at the University Club of Buffalo, April 12. Dr. Karl G. Knoche of Chicago read a paper and gave a clinic on Removable Bridge Work. Officers were elected as follows: President, M. Burton Eschelman, Buffalo; Vice-President, L. L. Mulcahy, Batavia; Secretary, Lowell Childs, Springville; Treasurer, F. A. Ballachey, Buffalo.

The Medical Society of the State of N. Y. meets at Saratoga, May 16-18.

University of Buffalo Alumni Association. The annual meeting of the House of Delegates was held March 22. Officers were elected as follows: President, Richard F. Morgan, Pharm. D. '97; Vice-President, D. H. Squire, D. D. S., '93; Secretary, Julian Park of the Faculty of the Arts Dept.; Treasurer, A. Glenn Bartholomew, LL.B., '03.

The Binghamton and the Elmira Academy of Medicine held a joint meeting at the rooms of the latter, April 18. The program was as follows: 1. The Present Status of Physical Therapeutics. Dr. J. C. Fisher, Elmira. Discussion opened by Dr. L. H. Quackenbush, Binghamton. 2. Symposium on Diseases of the Stomach. Medical Aspect with Roentgenographs. Dr. John A. Bennett, Elmira. Discussion opened by Dr. H. I. Johnston, Binghamton. Surgical Aspect, Dr. A. W. Booth, Elmira. Discussion opened by Dr. Wm. A. Moore, Binghamton. Collation.

The Medical Society of the County of Genesee held its regular meeting at Batavia, April 5, after dinner at Mayer's cafe. Dr. Charles Bentz of Buffalo read a paper on Serums and Vaccines. (Note: This Society uses a convenient postal card blank with spaces for time and place of meeting, program, etc., which is to be commended to societies not of sufficient size to warrant the printing of notices of each meeting.)

The American Proctologic Society will hold its 18th annual meeting at Detroit, June 12 and 13, the same week as the A. M. A.

The Buffalo Academy of Medicine has held the following meetings since last noted:

April 5, Surgical Section; Observations Concerning Diseases of the Gall Bladder and Ducts, Dr. Russell S. Fowler, Brooklyn, with color pictures and lantern slides. A proposition for the purchase of the lot on Linwood Avenue owned by the Academy was received but was not accepted, although it showed that the investment had been a wise one.

April 12, Medical Section; Colloid Chemic Phenomena in the Living Cell, G. H. A. Clowes, Ph. D.; Roentgen Diagnosis of Gastro-enteric Diseases (lantern slides) Dr. Lester Levyn. (Note: We expect to publish a summary of Dr. Fowler's remarks, Dr. Levyn's paper and, later, a series embodying the substance of Dr. Clowes' talks on physical chemistry.)

April 19, Section of Obstetrics; Results of Routine Study of the Placenta, Dr. J. Morris Slemons, New Haven.

A National Association of Clinical Laboratories has been framed at a preliminary meeting in Chicago, and an organization meeting will be held in Detroit, June 12. It is to be hoped that all members of the profession interested in this field will attend the meeting. We understand that it is desired that those not necessarily connected with established laboratories and not limited to laboratory work shall attend, in order that the new organization may co-operate with clinicians and extend its usefulness along broad lines.

Regular meeting of the **Medical Society of the County of Erie** was held on April 17, at 8.30 p. m. in Alumni Hall, University of Buffalo, 24 High Street. President Barrows presided.

The Secretary read the minutes of the regular meeting held February 28th, 1916, which were approved as read. He also read the minutes of the Council meetings held March 7th, March 13th and April 11th, 1916, all of which were approved as read.

Amendments to the By-laws, which were presented by Doctor Albert T. Lytle at the regular meeting held February 28th, 1916, had been printed in the notice for the regular meeting of April 17th, 1916, and were read by the Secretary. On motion of Doctor Gaylord, the amendments to the By-laws as printed in the notice of the meeting were adopted subject to the approval of the State Society.

Doctor Bonnar, chairman of the Board of Censors, made a brief verbal report on the work of the Censors.

Doctor Gaylord, chairman of the Committee on Legislation, made a brief verbal report on the work of the Legislative Committee.

Treasurer Lytle stated that the By-laws required him to read the names of those members who were delinquent with their dues, unless relieved from making such report by the Society. On motion the reading of the names of members who were in arrears with their dues was postponed until a future meeting.

The Secretary stated that an invitation had been extended by the Buffalo Historical Society to the Medical Society of the County of Erie to attend a meeting in memory of Doctor Ernest Wende and Doctor Roswell Park to be held at the Historical Society Building on Tuesday evening, April 18th, 1916. At this meeting Mr. Adelbert Moot will speak on the life and work of Doctor Wende, and Doctor Charles G. Stock-

ton will present a paper on Doctor Park. On motion of Doctor Lytle, seconded by Doctor Mann, President Barrows and Secretary Gram were designated to officially represent the Society at this Memorial Meeting.

Doctor Jacobs, chairman of the Committee on Membership, presented the names of the following applicants and moved that they be elected to membership. The motion was seconded and each applicant was separately voted upon and elected as follows:

Reinstatement of Doctor Irving R. Johnson, 403 Delaware Avenue, Buffalo.

Election to membership of Doctor William K. O'Callahan, 620 Niagara Street, Buffalo.

Election to membership of Doctor Wilfred H. Baines, 1273 Abbott Road, Buffalo.

Election to membership of Doctor Henry D. Abbott, 1355 Abbott Road, Buffalo, by transfer from the Hudson County Medical Society.

Reinstatement of Doctor Lawrence Hendee, 346 Elmwood Avenue, Buffalo.

This concluded the business part of the program.

Doctor Harvey R. Gaylord, director of the New York State Institute for the Study of Malignant Diseases, then delivered a popular lecture on the work of the Cancer Laboratory, located in the State Institute at 113 High Street, Buffalo. This lecture was accompanied by lantern slides and showed in a general manner the work as it is conducted and what has thus far been accomplished. At the close of the lecture a motion by Doctor McKee seconded by Doctor Mann, a hearty vote of thanks was given to Doctor Gaylord.

The Society then became the guests of the State Institute, where it adjourned in a body, to make a complete inspection of the various features of the Institute, such as laboratory, hospital and research work. The various activities were explained to the visiting physicians by Doctor Burton T. Simpson, Department of Pathology; Drs. G. H. A. Clowes and F. West, Department of Chemistry; M. C. Marsh, Department of Biology; T. F. Cooke, Department of X-Ray and Radium; Dr. J. A. P. Millett and Dr. Herbert Bauckus, Clinical Work in the hospital, and Dr. B. F. Schreiner, the activities of the Dispensary Service.

At the conclusion of this inspection a splendid collation was served.

How much the members appreciated this privilege was shown by one of the largest attendance of members at any meeting for a considerable period.—Franklin Gram, Sec'y.

PERSONAL.

Announcement of removal, travel, and other matters of interest are requested. Please report errors in the listing of any physician in the State and other directories, that we may co-operate with the State Society in securing a correct list.

Dr. C. R. Calkins of Perry returned from a trip to Florida the last of March.

Dr. A. Crandall Way of Perry left for Florida April 8.

Dr. Chas. A. Richards has resigned from the Dunkirk Board of Health.

Dr. Geo. E. Fell of Buffalo has moved to 209 Porter Ave.

Dr. J. Henry Dowd of Buffalo has moved to 9 North Pearl Street.

Dr. Clarence Arthur McWilliams of N. Y., late Chief Surgeon of Military Hospital No. 32 at Chateau de Passy, France, gave a talk, illustrated with lantern slides, at the University Club of Buffalo, April 22, on The War at the French Front.

Dr. F. Park Lewis of Buffalo has been appointed a vice-president of the B. F. D. Permanent Blind Relief War Fund, whose headquarters are at 590 Fifth Avenue, N. Y.

The office of Dr. Frank A. Beyer, over 559 Main Street, Buffalo, was robbed April 2, at night.

Dr. John H. Pryor of Buffalo has been appointed Medical Adviser and Chief of the Consulting Staff of the J. N. Adam Memorial Hospital.

Dr. B. F. Rogers of Buffalo returned about April 1 from a western trip.

Dr. Maud A. Frye of Buffalo returned from Washington April 10.

Dr. Juliet E. Hanchett has resigned the position of public vaccinator of Syracuse and has sailed for Europe. Her Syracuse service extended over 15 years and included over 30,000 vaccinations of school children, without a bad result.

Dr. Roy S. Moore of Cicero has sold his practice to Dr.

F. B. Foote and has gone to Harvard for a post graduate course in eye, ear, nose and throat.

Dr. Floyd M. Crandall has been appointed by the Council of the State Society to succeed the late Dr. Wisner R. Townsend as Secretary.

Dr. S. P. Jewett of Buffalo has moved to Astoria, L. I.

Dr. Edward H. Storek of Buffalo was married to Miss Jane R. Henn March 29.

The home of Dr. C. H. Cook, 98 Rodney Avenue, Buffalo, was badly damaged by fire due to an electric iron last month.

Dr. Raymond Hensel and Dr. John T. Gratz (Buffalo 1914) have been formally appointed resident physicians in the municipal hospital.

Dr. Ulysses B. Stein, formerly of Buffalo, is located at Newfane.

Dr. F. C. Storer, formerly of Holly, is located at 296 Rugby Avenue, Rochester.

The Medical Advisory Board of Niagara Falls, on March 3, presented a loving cup to Dr. Wm. H. Hodge, who organized the Board in 1905 and has served on it ever since, several years as chairman.

A complimentary dinner was given to Health Commissioner Francis E. Fronczak of Buffalo at the Statler March 15, over 100 being present. Dr. F. Park Lewis presided. In responding to Dr. Lewis's introduction, Dr. Fronczak paid tributes to his predecessors: G. H. Mackey, Health Officer 1878-9, now Medical Director of the Equitable Life Insurance Co. in N. Y.; Lt.-Col. Albert H. Briggs, M. D., 1880-1 and 1884-7; Dr. Wm. C. Phelps, 1882-3; Dr. Edward Clark, 1888-9; Dr. Walter D. Greene, 1890-1 and 1902-6; Dr. Ernest Wende, the first to hold the title of Health Commissioner under the revised charter 1892-1901, and also 1907 till his death, Feb. 11, 1910, when Dr. Fronczak, who had been appointed Assistant Health Commissioner in 1905, became Commissioner, and has since been twice reappointed to the same office. Dr. John C. McEvitt, Lieutenant Commander and Surgeon in the State Naval Militia, responded to a toast on Surgical Preparedness, outlining the probable number of surgeons who would be called out in the various lines of defense. Dr. Linsly R. Wil-

liams, Deputy State Health Commissioner, spoke particularly of the part played by Buffalo in Public Health matters. Dr. Otto Pfaff, Mayor of Oneida, emphasized the duty of the profession in backing up and participating in the government of the state.

Dr. James D. V. Sheehan has been appointed Vaccinator of Syracuse.

Drs. Daniel F. Luby, John Van Duyn and Edward S. Van Duyn, of Syracuse, have left for Europe, to serve in the Auxiliary Hospital at Dieppe.

Dr. Frederick J. Parmenter has returned to Buffalo after having completed the course of study at the Post-Graduate Hospital in New York. Dr. Parmenter has relinquished his medical practice, and will confine his work in the future to surgery, paying special attention to the Cystoscopic Diagnosis and the major surgery of the Genito-Urinary system.

Dr. Thomas E. Soules of Buffalo left the middle of April for a month's trip down the Mississippi and to New Orleans and vicinity.

OBITUARY

Readers are requested to report promptly the death of all physicians in Western New York, or former residents of this region, or graduates of any medical school in Western New York, and to notify the families of the deceased of our desire to publish adequate Obituary notices.

Dr. Geo. O. Williams, Albany 1866, died at his home in Greene, Feb. 24, of bronchopneumonia, aged 72.

Dr. Harry C. Jones, Prof. of Physical Chemistry at Johns Hopkins, committed suicide by cyanid poisoning, April 9. He was in a bad state of health.

Dr. Henry J. Fenn, a dentist of Albion, died April 11 of apoplexy, aged 47.

Dr. Charles S. Meahl, Buffalo 1890, died April 17.

A Memorial service was held by the Buffalo Historical Society, April 18, in honor of the late Dr. Roswell Park and the late Dr. Ernest Wende. Hon. Adelbert Moot presented the memorial to Dr. Wende; Dr. Chas. G. Stockton and Chan-

cellor Charles P. Norton to Dr. Park, the latter dwelling especially on Dr. Park's connection with the University of Buffalo.

Dr. M. F. Clausius, Buffalo 1891, died at his home in Siletz, Ore., Feb. 23, of cancer of the stomach, after an illness of about a year. He was born in Kruetinen, E. Prussia, March 11, 1852, and came to the U. S. in 1870. He was physician in the U. S. Indian Service. He bequeathed his medical library to the University of Buffalo.

Dr. Chauncey S. Lamb, Buffalo 1893, died at his home in New Haven, March 23, aged 44.

Dr. Milton Almond Curtiss, Syracuse 1878, died at his home in Kirkville, Feb. 27, of pneumonia following grippe, aged 61. He was the father of Dr. Carlton C. Curtiss of Rochester.

Dr. Luke Arthur Harcourt, Buffalo 1868, of Sacramento, died in San Francisco, March 3, aged 77.

Dr. Irving O. Nellis, Vermont 1882, died at his home in Utica, March 8, aged 59. He had formerly resided in Herkimer and was at various times coroner, health officer, president of the Herkimer Board of Health and deputy sheriff of the county.

Dr. Nelson D. Blood, Bellevue 1874, (not listed in State Directory, given in Polk) died at his home in Auburn March 11, aged 72.

Dr. E. L. Detwiler of Herndon, Va., was shot dead by the son of a patient on Feb. 29, for advising sending the patient to a hospital. The slayer is charitably supposed to have been insane. This is a strange illustration of the manifold dangers of the medical profession; yet not so strange after all, when we consider the strong opposition and manifestation of sentiment often encountered when such advice is given. One of our late colleagues was attacked by the husband of a woman who died in childbirth, and we have known of several instances of attacks by dogs during professional calls. Frequently we read of murders of physicians on account of jealousy, sometimes apparently justified, usually without reasonable grounds. We all realize the dangers of medical practice from exposure and fatigue and from accidents during transit to and from patients. Railroad and automobile accidents are of almost weekly occurrence; runaways, drowning

in streams that have carried away bridges, freezing, etc., are now more common in fiction than real life. It is worth while to consider that the medical profession runs an appreciable risk from manslaughter, directly due to professional occupation.

Dr. George S. Trevor (not listed in Polk) died at his home in Detroit, April 4, aged 77. He was in the oil business but formerly practiced medicine in Lockport.

ABSTRACTS.

Have you ever felt that this department of the **BUFFALO MEDICAL JOURNAL** was lacking in abstracts of your specialty, or that such as were published lacked the expert judgement which you yourself could have exercised in selection and preparation? If not, you are more charitable than the editor has been to himself. If so, will you assist in abstracting from a few journals, and thus make this department more representative and more valuable? Incidentally, there are few forms of study more helpful to the worker than this.

Strange, Isn't It? You are consulted by a gentleman of 60 who you find has a systolic pressure of 190 and a diastolic pressure of 120. He insists that he feels fine. He weighs 210 pounds and has an abnormally protuberant abdomen. The urine shows nothing and the heart is in far better condition than one would expect to find it. You tell him the significance of things and advise him as to how he shall live and eat, etc., in order to conserve his vitality. You restrict his diet and perhaps give him some iodide of potash, or a little nitre. You see him two weeks later and he has lost 10 pounds, mostly from the abdominal region. His pressure has fallen ten points at both ends. You see him in another two weeks and find that he has lost five pounds more, and that both pressures have fallen further, but that the systolic pressure has fallen relatively faster than the diastolic, so that pulse pressure is beginning to approximate the normal. You feel quite proud of yourself and are certain that you have rendered a real medical service that will be lasting in its results. Then a week later you learn that your wonderfully improved patient fell dead the day after his last visit to you. Odd, such happenings, aren't they?—Edit. Med. Times, Feb.

Successful Suture of Traumatic Rupture of Spleen. Joseph J. Levin, Boksburg Hospital, Med. Jour. of South Africa, Dec., 1915, reports the case of a native aged 18, who had

been kicked in the back and struck with the fist in the abdomen by his master. He was first seen the following day, showing the ordinary signs of shock and internal haemorrhage. The liver was examined after section and found intact. A 2-inch tear of the capsule of the spleen was found, and a large amount of dark blood was evacuated from the peritoneal cavity. Recovery followed upon suture. Michelson is quoted as giving a mortality of 33.2% in a series of 298 cases.

Combined Preventive Inoculation Against Typhoid, Paratyphoids and Dysentery. J. Pratt-Johnson and A. J. Milne. *Med. Jour. of S. Africa*, Nov., 1915, consider that untreated dysentery vaccine, with or without the other vaccines mentioned, produces too severe and prolonged local reaction. Hence, they use a completely sensitized vaccine, with a heated polyvalent dysentery serum, Shiga, Flexner, Kruse, Hiss and Russell strains being employed in equal parts. This is then combined with the other vaccines. Specific agglutinins are found for each of the diseases, after 9-14 days. 150 inoculations have been made and carefully observed for 14 days, 60% of the persons being engaged in heavy manual labor during the time. They consider their combined vaccine available for military purposes.

Stab Wound of Pericardium. Dr. Fred Rankin, *ibid.* reports a case of self-inflicted scissor wound in a man of 35, first seen half an hour after the injury, there being no shock. On account of dyspnoea, the stomach tube was passed but only a small amount of clear fluid withdrawn. Two hours later, it was decided to operate. There was much haemorrhage so that the internal mammary artery was tied. The scissors had penetrated the seventh cartilage and opened the pericardium, from which large clots were removed. Suture was not attempted. The heart was apparently intact but the condition of the patient at the time did not warrant protracted search. The wound was packed, after resecting ribs, without suture and pus developed but the general condition was good till the ninth day when death suddenly occurred. No autopsy, tentative diagnosis of embolism. The first deliberate attempt at surgery of the heart was in 1871 when Callender removed a needle. Roswell Park in 1877 aspirated a myocardial abscess. Farina, 1896, first introduced sutures for a wound of the heart.

Haemothorax in Military Practice. Sir J. R. Bradford and Capt. T. R. Elliott, *Brit. Jour. of Surg.*, p. 247, 1915, vol. 3, report 168 cases, Nov. 1914-March 1915, and 160 cases March-

July 1915, the latter series including only severe cases. 114 of the first group and 86 of the second were sterile. 28 infected cases survived after resection of a rib in the first series, 53 in the second series. The total mortality of chest wounds reaching the base hospitals is 10%. Simple haemorrhage never causes death after the third day, the danger after this time being mainly from sepsis. Primary infection occurs in about 25% of effusions and is fatal in about a third of the infected cases. It should be suspected in cases not progressing favorably after the fourth day, but can be diagnosed positively only by bacteriologic examination of a specimen aspirated. Sterile haemothorax should be aspirated if the effusion extends more than half way up the scapula. A complete pneumothorax or large pneumohaethorax due to leak of air from the lung is not often infected. Immediate resection should be performed if infection occurs, aspirating first if air is also present.

Home Ventilation. Edward D. Rich, C. E., Public Health (Mich. State Board of Health), Jan. 1916. We omit the practical parts of this paper, since heating and ventilating systems can rarely be ordered by the medical attendant and their installation requires the services of a competent engineering architect. The following tables are of interest:

AIR POLLUTION TESTS

Subject to Test.	At work.				At work.			
	Temp.	Humid.	CO	H ₂ O	Temp.	Humid.	CO	H ₂ O
	Deg.F.	P. C.	Cu.Ft.	Grains.	Deg.F.	P. C.	Cu.Ft.	Grains
Laborer	45	81	1.515	2.03	69	20	.551	1.12
Laborer	77	47	1.423	8.05	78	26	.586	2.55
Clerk	64	44	1.331	1.768	69	29	1.141	1.19
Draughtsman	69	41	1.61	1.61	..	..	....	....
Average man .....	..	..	....	....	66	63	.412	1.365
Woman	..	..	.600	....	..	..	....	....
Boy	..	..	.48	....	..	..	....	....
Girl	..	..	.39	....	..	..	....	....

POLLUTION BY LIGHTING

Source.	Consumption of		Carbonic Acid	
	Combustible per		per	
	C. P. in Cu. Ft.		C. P. in Cu. Ft.	
	Per hour		Per hour.	
Gas—Fishtail burner	.802	— .527	.494	— .304
Gas—Argand burner	.0	— .445		.254
Gas—Welsbach burner	.053	— .024	.030	— .057
Petroleum, round burner.....	Gals.	— .00050		.112
Petroleum, small flat burner.....	Gals.	— .00198		.335
Wax candles	Oz.	— .271		.417
Paraffine candle	Oz.	— .324		.459

AIR DILUTION

Detrimental effect occurs in several hours. $\frac{1}{2}$ to 1 hour.

Iodine vapors	.00005	.0003
Chlorine or bromide vapors.....	.0001	.0004
Muriatic acid	.001	.005
Sulphuric acid .....	.....	.005
Sulphureted hydrogen .....	.....	.02
Ammonia	.01	.03
Carbonic oxide	.02	.05
Carbonic acid	1.00	8.00
Carbureted hydrogen .....	.....	6.56 gr.

HEAT GIVEN OFF BY ILLUMINANTS

Source.	Total B.T.U's Given off.
Gas—Fishtail burner	313
Gas—Argand burner	198
Gas—Welsbach burner	32
Petroleum	198
Incandescent lamp	14
Arc lamp	2.5

CHANGE OF AIR NECESSARY

Hospitals	3,600 cu. ft. per person
Barracks and workshops.....	3,000 cu. ft. per person
Schools	2,400 cu. ft. per person
Churches, theaters and audience halls.....	2,000 cu. ft. per seat
Office rooms	1,800 cu. ft.
Toilet and bath rooms.....	2,400 cu. ft. per fixture
Dining rooms	1,800 cu. ft. per person

For calculating the amount of air necessary, the following is given: S is the cubic feet of carbon dioxid per hour from each source, persons, lights, etc.; n the number of sources; a the allowable limit of carbon dioxid in 10,000 cubic feet of air; which should not exceed 7, 10 being the sanitary limit; A the number of cubic feet of air to be supplied per hour. A equals nS (or $n S$ plus $n' S'$ if there are different sources, as persons and gas lights) multiplied by 10,000 and divided by $(a-4)$.

Leukopenia: Its Relation to Neuralgia. Joseph H. Catton of San Francisco, Calif. State Jour. Meh., presents a bibliography and concludes as follows:

(1) Neuralgia may occur:

a. In exogenous infectious intoxications: malaria, influenza, syphilis, and less frequently typhoid, tuberculosis, smallpox and tonsilitis.

b. Exogenous non-infectious intoxications: Poisoning with lead, arsenic, mercury, copper, nicotine, hydrogen sulphide,

illuminating gas, benzene and iodine; or as an abstinence symptom in morphinism and cocainism.

c. Dyscrasic intoxication in blood disease: the severe anemias, pernicious anemia, chlorosis, leukemias, hemophilia and polycythemia.

d. Following exposure to cold.

e. In certain ductless gland disturbances.

f. In debility and malnutrition.

(2) A relative or absolute reduction in the number of granular leukocytes tends to be characteristic of each of the above conditions.

Conclusion—After a study of the conditions etiological in neuralgia and of the leukocyte pictures present in these conditions, the suggestion is offered that there is a definite relation between neuralgia on the one hand and a disturbance in the normal polynuclear-lymphocyte balance,—a tendency toward decrease in the number of granular cells and increase in the number of hyaline ones.

Six Cases of Blastomycetic Infection of Eyelids Reported in Memphis. Robert Fagin, Memphis, Ophthalmoscope, Sept.



Fig. 1.

1915, Memphis Med. Monthly, Dec. 1915. (Cuts by courtesy of Editor of latter). This report was the thesis for the degree of Doctor of Ophthalmology, Univ. of Col., 1915. Due credit is given to the physicians whose cases are described, one case being under the author's personal care, throughout. 5 cases were negroes.



Fig. 2.

Case 1 (see Fig. 1) began in summer of 1905, treated a little over a year later by large doses of iodides and X-ray. Ectropion resulted, plastic operation with skin graft from patient's arm. Cure, shown by picture made April 1915.

Case 2. (See Figs. 2 and 3). Began 1900 in left eye, first seen 1908, has recently involved right side.

Case 3. (not illustrated) Began 1908, first seen 1910, involved both right lids.

Case 4. (See Fig. 4). Began 1912, first lesion on nose.



Fig. 3.



Fig. 4.



Fig. 5.



Fig. 6

Picture made April 1914. This is the only case in a white person reported from Memphis.

Case 5. First seen and photographed March 1915. Initial lesion on outer canthus of right eye. This is the only case in the series in which lesions at a distance, were noted, namely on the arms and one leg.

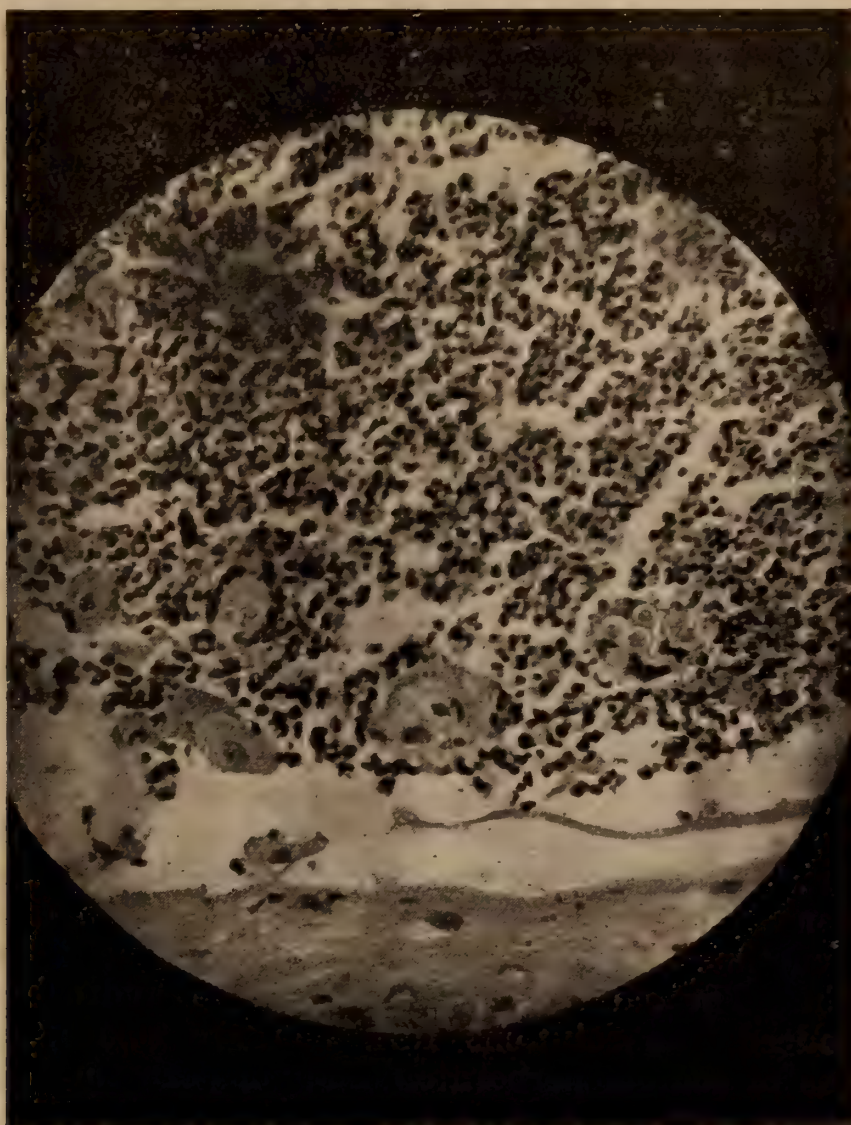


Fig. 7.

Case 6. (See Figs. 6 and 7). Began 1911, first seen and photographed Nov. 1913. April 1914, after iodid and X-ray treatment, the case seemed practically healed with little ectropion. June 1, after a hearty meal, he became unconscious and soon died. No necropsy. Unilateral paralysis observed and suspicion of blastomycetic brain lesion.

Treatment of Wounds. H. Bourgeois, Prog. Med., Feb. 5, 1916. Otologists have long recognized the obstinacy of the bacillus pyocyaneus and its tendency to produce a perichondritis. It produces a characteristic odor preceding the color

by several days. It can be satisfactorily combatted by balsam of Peru, either spread on the surface or introduced into fistulae on bits of gauze. It should be employed in very small quantity and renewed every day or every other day. It is encountered also in war surgery. An extensive wound should be treated, not with the pure balsam but with the following: essence of marjorna 0.25, essence of verbena 0.25, following: essence of marjoram 0.25, essence of verbena, 0.25,

The bacillus pyocyaneus finds itself quite at its ease (Quaint non-technical expressions like this are common in French medical writings and impress their lesson on the reader much better than the more dignified expressions used by most English and American writers) in wounds treated by hydrogen peroxid but for almost all other wound infections, the latter continues to enjoy a well deserved vogue. While one can wash a wound with hydrogen peroxid it cannot be used for a fixed dressing for the oxygen soon disappears. For this purpose, we have long used perborate of sodium which yields its oxygen gradually in contact with the bodily liquids. This action lasts for 12-18 hours. The action is not antiseptic alone, indeed, the first dressings increase the flow of pus and surgeons are found who refuse to employ it on the ground that it increases the infection. But, at the end of 48 hours, the pus has lost its fetor if it was present at the beginning and the secretion gradually becomes less purulent and changes to one of lymph. Granulations become healthy and are not redundant so that epidermization is not interfered with and it is unnecessary to use silver nitrate. The objections to sodium perborate are that it cannot be sterilized, sometimes produces pain and is sometimes irritating to the skin. The same objections apply to hydrogen peroxid and, indeed, the solutions furnished are sometimes simply solutions of sodium perborate. Sodium perborate should not be used on aseptic wounds or on a fresh wound which can readily be sterilized, nor in the visceral cavities nor joints.

Paratyphoid A, Complicated With Purpura Haemorrhagica. E. Job, Soc. Med. des Hop., Nov. 12, 1915. Patient aged 12, diagnosis by pure culture of paratyphoid A, shortly after entrance to hospital Oct. 1. Moderate course till Oct. 21 when obstinate epistaxis began. Then purpuric spots, soon becoming general and followed by multiple haemorrhages. Death Oct. 27.

Cholera Inoculation. Buiwid and Arzt, Wien. Med. Woch. report 47 cases with 4 deaths, all four having had but a single injection whereas three are considered necessary to protect.

Abdominal Wounds, Sejournet, *Le Prog. Med.*, Feb. 20, presents the following table of military experience:

	Cases.	Cured.	Died
Penetrating wounds without visceral lesions.	11	8	3
Small Intestine 1-4 perforations.....	18	8	10
“ “ more than 4 perforations...	14	4	10
“ “ severance or tearing.....	22	6	16
Large Intestine	21	9	12
Large and Small Intestine combined.....	22	6	16
Wounds of Intestine and other viscera—			
Liver	9	2	7
Spleen	3	0	3
Bladder	6	1	5
Great blood vessels.....	2	0	2
Several other viscera.....	4	0	4
Wounds of viscera, intestine escaping—			
Liver	12	9	3
Spleen	6	1	5
Liver and other organs.....	9	3	6
Various wounds, kidney, bladder, great vessels	8	1	7

Chaulmoogra Oil in Leprosy. Vahram, *Le Prog. Med.*, Feb. 5, reports two cases, receiving about 30 injections each. A pseudo-celloid solution is employed, containing 72/100 m.g. of chaulmoogra oil per C.C. The initial dose is 1/4 C.C., increased by 1/10 C.C. up to 2 C.C. and holding at this dose till 20 injections have been given intravenously. Then begin hypodermic injections at 1/2 C.C., increasing by 1/2 or 1 C.C. up to 5 C.C. and holding at this amount to the 20th injection. Injections of both forms are given every second day. Good results, cicatrization, etc., increase in red cells, to normal, absence of haemolysis or of modification of respiration or urinary secretion.

Supersaccharated Milk in Adult Dyspepsias with Gastralgic Crises and Vomiting. G. Variot and O. Burileano, *Soc. Med. des Hop.* Nov. 5, 1915, advocates the addition of 10% of saccharose to milk, giving 2 liters a day to women, 3 to men. Apparently, reference is made to hyperchlorhydric cases. The urine does not show sugar.

Californian Blastomycosis. Paul Campiche, of San Francisco, *Rev. Med. de la Suisse Romande.* Nov. 20, 1915, writes of the oidium coccidioides under this term, giving a hopeless prognosis, even with salvarsan. He considers the condition as limited to California and believes that European surgeons will never see it.

Attempted Self-Operation for Recurrent Appendicitis. F. P. Hulen, Pond Creek, Okla., *Railway Surg. Jour.*, Feb. A man aged 19, married, who had had two previous attacks during which the advantages of radical operation was urged, and who was under medical treatment for the third, feeling himself worse, although the doctor (the author's son) had already been summoned, poured carbolic acid over the lower abdomen and exposed the viscera with a Barlow knife which he had used recently for castrating pigs. He fainted and fell off the bed onto the floor, the intestines coming in contact with soiled rugs. The doctor arrived almost immediately, washed off the intestines with 1:4000 bichlorid and sent for the author who completed the operation. Very little anaesthetic was needed on account of the local action of the carbolic acid. Recovery occurred by first intention but the skin necrosis due to the carbolic acid did not heal for six weeks as skin grafting was refused. In the discussion, W. H. German of Chicago narrated the case of a medical missionary in China who instructed his wife in the details of operation and she anaesthetized him and performed a successful appendectomy, although she was not even a trained nurse. (Note: While an interne in Rochester, we saw a case of self-castration which had been successfully and radically performed not for pathologic but physiologic manifestations. The after care was left to the surgeons and the man recovered).

Period of Life at Which Tuberculous Infection Occurs. S. Adolphus Knopf, *Med. Rec.*, Jan. 8, from replies received from 60 authorities consulted gives the following statistics of the time at which tuberculosis was contracted: Under 1 year, 1.9%; 1-3 years, 9.50%; 3-5 years, 27.75%; 6-10 years, 75%; 11-15 years, 12.94%. These estimates (minima and maxima of authorities consulted) are of course mainly opinions though to some extent based on careful histories and serial statistics. All agree that the lungs and lymph nodes are the parts most frequently affected primarily and that an infection in infancy or early childhood most frequently becomes active at about the 15th year, next most frequently between 18 and 30. Excluding early infection, the disease appears and is apparently actually contracted in most cases in the period 20-35 years.

Sodium Salicylate in Scarlatina. Felix Raymond, *Soc. Med. des Hop.*, Oct. 22, 1915, advocates this as a routine treatment, the initial dose being 2 grams, then 6 grams a day in $\frac{1}{2}$ gram doses, with due regard to individual susceptibility. Immediate amelioration occurs and complications are avoided.

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ORIGINAL ARTICLES

The right is reserved to decline papers not dealing with practical medical and surgical subjects, and such as might offend or fail to interest readers. Contributors are solely responsible for opinions, methods of expression and revision of proof.

The Early Diagnosis of Gastric Cancer.

Suggestions to the General Practitioner.

By JOHN R. WILLIAMS, M. D., Rochester, N. Y.

The absolute clinical diagnosis of early gastric cancer is impossible in the present stage of our medical knowledge. The diagnosis of early gastric cancer when made must be largely conjectural and based on probabilities. What was formerly considered an early stage of cancer is now known to be the moderately advanced or hopeless period. By early stage of gastric cancer we mean that phase of the disease where a few cancer cells have become implanted in an area of irritation in the gastric mucosa. Such an area of irritation including the cancer cells may not be larger than a fifty cent piece or even much smaller. A cancer area so small as this may fail to produce symptoms. The most striking symptom produced by cancer is a toxemia, which expresses itself as cachexia, loss of weight, and loss of appetite. Pain as a symptom of cancer of the stomach depends largely on the position of the growth. The same may be said of nausea and vomiting. In the early stage of gastric cancer none of these phenomena may be present.

Although the actual cause of cancer is not known, we are in possession of some information concerning its etiology. Practically all clinical surgeons believe that gastric cancer in the majority of instances develops on the site of an old ulcer. In the Mayo clinic, approximately seventy per cent of gastric cancers are believed to have been pre-ulcerous. Moynihan, an opponent of this teaching at first reluctant to believe it, now estimates that 72 per cent of his cases were pre-

ulcerous. Mayo Robson reports that 59 per cent of his cases were pre-ulcerous. These surgical clinicians agree that the proportion of cases of cancer developing on the site of ulcer depends directly upon the training of the clinician and the thoroughness of his methods of investigation. If these statements be accepted as a working guide in the diagnosis of early cancer it is obvious that the physician must give his attention to the study of gastric ulcer. The way therefore to cure gastric cancer is to prevent if possible or cure gastric ulcer.

Until Rosenow in 1914 proved that gastro-intestinal ulcer could be caused by streptococcic infection starting from foci in the mouth, there was no adequate explanation of the cause of gastro-intestinal ulcer. How frequently mouth infection is the causal agent in producing gastric ulcer is problematical, but that the conditions are commonly associated has been frequently observed. During the past thirty months I have seen 13 cases of gastro-intestinal ulcer which have come to operation. Of these 12 had severe dento-alveolar infection. The following case is illustrative:

Case 704, male iron worker, aged 50, presented himself on November 3, 1913, for examination, complaining of pain and distress in the epigastrium and irregular movements of the bowels. A clinical examination was made at the time, from which it was concluded that he had chronic ulcer in the upper gastro-intestinal tract. It was observed at the time that his teeth were badly decayed, in many cases nothing but rotten stumps remaining. The gums were swollen and edematous; the tongue swollen and teeth-marked; breath foul; cervical glands moderately enlarged.

On December 23, 1913, patient had severe hemorrhage from the stomach, vomiting blood until he was almost lifeless. The patient was immediately removed to the hospital. On December 27th he was operated upon by Dr. Thomas Jameson and a duodenal ulcer about the size of a 25 cent piece was found one and one-half inches from the pylorus. Just before operation a blood culture was made, also a culture from a pus pocket between the gum and one of the infected teeth. At operation a swollen lymph gland, lying in close proximity to the ulcer, was removed with aseptic precautions and placed in a sterile tube. Later this gland was crushed with a sterile rod and the juice pressed therefrom was used to inoculate agar slants. A streptococcus was isolated from this gland juice, which resembled morphologically and culturally an organism recovered from the blood and the infected teeth. The organism was slow growing and died out before its identity could be established.

If the absolute clinical diagnosis of early cancer is at the

present time impossible, it is proper to ask, what is the basis of a conjectural diagnosis? When a middle-aged individual presents himself complaining of loss of appetite, loss of weight, and of indisposition, the physician should assume, until he can prove otherwise, that he is dealing with a case of malignancy, and he should make a most exhaustive examination of such a patient, calling to his aid the experience of men specially trained in the various fields of scientific endeavor.

In the examination for suspected gastric cancer, the most important element is the history of the case. Such a history should be comprehensive and in its relation to the digestive functions should so particularize as to fix definitely every important event in the gastro-intestinal history of the patient. A detailed record of all preceding attacks of gastro-intestinal disturbance should be secured. Careful inquiry should be made into such illnesses as ptomaine poisoning, dysentery, stomach ache, heartburn, and gas on the stomach, for many patients and physicians mistake these disorders for gastro-intestinal ulcer.

The specific history of pain should receive careful attention. Its relation to the meal is important. Pain in the mid-epigastrium occurring three or four hours after meals, especially if it radiates to the right, is likely to be duodenal ulcer. Pain occurring an hour or two after meals in the mid-epigastrium and perhaps radiating to the left, is more likely to be gastric ulcer. Pain of this character is commonly relieved by food or alkali in the stomach, because both of these neutralize the acid which causes the irritation of the ulcer. Pain from an ulcer on the posterior surface of the stomach, especially where there are adhesions to the pancreas, commonly causes pain in the shoulder. It is impossible to make a diagnosis of ulcer or cancer on the basis of pain alone, because pain in the stomach resulting from spasm of the pylorus may be caused by many other conditions, as appendicitis, gall bladder disease, kidney disease, and gastric neuroses. The proper value to be attached to the pain symptom can however be ascertained when these other disease phenomena are excluded.

The reason for loss of appetite should be carefully considered. Tuberculosis and many other bacterial or parasitic infections and primary anemia may cause loss of appetite.

These can only be excluded by careful special examinations. The same may be said of loss of weight.

Vomiting is a sign of lesser importance. Its cause is largely mechanical, and it bears no relation to the stage of or the severity of either ulcer or cancer. An ulcer may develop near the pylorus in which cancer cells may or may not be

come implanted. The area of infiltration through interference with the circulation may lead to edema of the adjacent stomach mucosa, the resulting suffering may close the pylorus so as to form either a partial or total obstruction. Such cases have been reported. The character and quantity of the vomitus has significance. If the patient regurgitates merely a small amount of clear, colorless, acid fluid, it means that there is no obstruction in the pylorus, and that hemorrhages, if occurring, are very minute. If he regurgitates a large quantity of old food material, light brown or chocolate color, it means that the patient has stasis or dilation of the stomach, probably obstruction together with a hemorrhage.

The absence of a history of gastro-intestinal disorder does not preclude the possibility of cancer. In 1913 I had a patient referred to me, who had just returned from a well known clinic where he had sought advice with reference to certain bladder symptoms caused by prostatic disease. He had no gastro-intestinal symptoms. In my routine examination I discovered evidence of gastric cancer and so reported. The patient was then referred to Dr. Roswell Park, of Buffalo, who urged exploratory incision in view of my report. This was done and a hopeless condition of malignancy was found in the stomach. It is important, therefore, to remember that the history does not always reveal evidence of gastric cancer.

Next in importance to the history taking, in the examination of a case of this type, is the physical examination. This should include a careful examination of the mouth and head sinuses, and if there is the least suspicion of concealed infection, the services of a specialist should be enlisted. Suspicion should be directed against crowned teeth, bridges, receded gums and dead teeth. The tonsils should be carefully explored, and the physician should not consider his examination in these complete until he has made the patient gag so as to project the tonsils into full view. A negative history of tonsilitis does not preclude severe low grade tonsillar infection. A cryptic tonsil covered with mucus or filled with cheesy plugs, particularly if submerged and lying beneath the pillars of the fauces, may be regarded as harboring deleterious infection.

One of the best premonitory signs of mouth infection is a swollen, teeth-marked tongue with palpable cervical glands. I have had an opportunity of examining several hundred persons with reference to mouth infections, and I have never yet seen a patient with a swollen, teeth-marked tongue and palpable cervical glands where head infection could not be demonstrated.

The importance of mouth infection cannot be over-estim-

ated in the investigation of gastro-intestinal disease. Recently, I was asked to examine a male, 62 years of age, who was suffering from loss of appetite, loss of weight, marked cachexia, nausea and vomiting. The patient presented a very satisfactory picture of malignancy, and his physician, with gastro-intestinal cancer in mind, was contemplating operative treatment. In my examination I discovered that the man had thirteen badly infected and rotten stumps in his mouth. I gave the opinion that if the man's illness were due to carcinoma, his condition was hopeless and beyond surgical aid, but that if it were due to mouth infection, removal of the infected teeth would undoubtedly promote recovery. The patient was then referred to a dentist. Since the removal of the teeth the patient has made a rapid and complete recovery. I have seen eight such cases during the past two years.

A routine examination of the lungs, heart and arteries should then be made and disease therein excluded. In the examination of the abdomen I have worked with practically all of the examining tables on the market, and have come to the conclusion that the very best one is a dining-room chair. When the stripped patient is seated on such a chair and is made to lean over so as to almost rest the chest on his knees, the physician, standing behind the patient, can explore the relaxed abdomen in a most surprising manner. He can reach up under the liver and into the deep recesses of the pelvis by this method in a way which is impossible with a patient lying on a flat table, in a hot bath, or even in a rocking-chair, as has been suggested by some clinicians. In palpating the abdomen the examiner should always begin with the flat of his hand. To commence such a study by punching the finger tips into the abdominal wall is to excite muscular reflexes, which are very likely to defeat the purpose of the investigator. When the patient is examined by this method it is easy to distinguish a diseased appendix, a sore kidney, or a swollen and tender gall bladder from a stomach lesion. An enlarged spleen or a neoplasm in the gastro-intestinal tract can be felt in this way where by other palpation methods these could not be detected.

The laboratory investigations of early gastric cancer afford little positive evidence. In the early days of gastro-intestinal studies it was believed possible to recognize and differentiate the majority of cases of gastric cancer. We now know that the evidence which was formerly considered positive pertained to the advanced or hopeless stage of the disease. Nevertheless, it may be said with truth that the chemical and biological study of the gastro-intestinal tract in advanced cancer affords more convincing evidence than does any other line of study. Its value in the early stages, however, is only

corroborative. I have had experience in the examination of upwards of three thousand gastro-intestinal cases, many of which proved to be cancer. My experience is quite similar to that of Smithies', whose observations are probably the most accurate and conclusive to be found in the literature, because he has had an unusual opportunity to follow up and confirm his findings. They are essentially as follows:

If the growth interferes with the motor power of the stomach, the amount of stomach contents recovered will be greater than normal in proportion to the degree of obstruction. Free hydro-chloric acid is usually lower than normal and may be absent. Occasionally it may be excessive. Lactic acid is rarely present in the early stage of cancer. Occult blood is present in about half of the early cases. The Oppler-Boas organism is not commonly seen in the early stage unless there is interference with the emptying of the stomach. Then its presence is quite striking. An early state of ulcer may present such evidence as retention, rancid food, low or absent hydrochloric acid, the presence of lactic acid and occult blood. The glyco-tryptophan test, because of ease of error in the test, is of very doubtful value. The Abderhalden biological test for cancer is so uncertain in its present stage of development as to be worthless.

The next step in the study of a gastro-intestinal case is the X-ray examination. This is perhaps the most valuable single laboratory aid. Since it belongs in the field of special study and its employment is beyond the technical capacity of the majority of general practitioners, it is not here considered.

Summary and conclusions:

1. A positive clinical diagnosis of the early stage of gastric cancer is practically impossible at the present time.

2. There is no single sign or group of pathognomonic signs pointing indubitably to early gastric cancer.

3. A very large per cent of gastric cancers develop on the site of old ulcers. It is in this pre-cancerous or ulcerative stage that gastric malignancy should be recognized.

4. Loss of appetite and loss of weight, nausea and vomiting in a middle-aged person should always excite the suspicion of the physician that he is dealing with gastro-intestinal malignancy. These are the signs, however, of moderately advanced lesions.

5. A conjectural or probable diagnosis may frequently be made after an exhaustive examination of the patient, of which a careful life history of the individual is of paramount importance. History taking should never be delegated to inexperienced or untrained assistants. A careful physical examination, while not affording positive evidence of

early gastric cancer, is valuable in excluding many other conditions giving rise to similar disease phenomena. Laboratory investigations are valuable in so far as they afford corroborative evidence and evidence excluding other possible causes.

6. Gastric cancer is of such a serious nature and its course so rapid that palliative medical treatment is a most dangerous expedient, and should never be resorted to to the exclusion of the scientific investigations that have been described in this paper. If a patient under suspicion does not make a rapid complete recovery even in the face of all negative laboratory evidence, his abdomen should be opened.

7. Gaylord has pointed out that immunity to invasion of cancer is infinitely greater in the early stage of the disease than it is in its later phases. Everyone is agreed that the only hope afforded the cancer victim is the early surgical eradication of his disease.

8. These facts impose a tremendous responsibility upon the clinician, and he who denies his patient the assistance afforded by the present-day sciences shirks his responsibility, and invites misery and death to his patient.

Exacerbation of Latent Syphilis and Gonorrhoea in the Course of Wounds by Fire Arms. Henri Toussaint, Soc. Chir., Nov. 3, 1915, cites three cases of syphilis showing renewed virulence of the treponema in symbiosis with common pyogens. He does not believe that exacerbation of venereal diseases will prove as frequent as that of malaria, alcoholism (delirium tremens?) and tuberculosis but suggests that the surgeon should not intervene till the system has been sterilized by medical action. Lumbar puncture, the Wassermann reaction, leucoplasia, black tongue and hemeralopic pigmentary retinitis are mentioned as diagnostic points. (Note: The author does not, of course, imply neglect of emergent surgical procedures nor undue delay in diagnostic procedures. His language is partly figurative, referring to the clearing of a region by one force before another goes to the attack, and is difficult of exact translation without implying a crude conception of infectious processes).

Acidosis in Children. Edward Clay Mitchell of Memphis, Memphis Med. Monthly, Dec. 1915. Children of gouty, rheumatic and alcoholic parents are predisposed, and there seems to be a family tendency. Carbohydrate starvation is the usually accepted cause. He reports seven cases, three in one family, with 3 deaths. Treatment consists in lavage, soda by mouth and hypodermatically, withdrawal of animal foods and administration of glucose solutions by rectum.

Exsudative Diathesis—A Review*

By CARL G. LEO-WOLF, M. D., of Buffalo, N. Y.

(Continued from May issue.)

Symptomatology: Pfaundler (68) states the case very clearly when he says that some children show a peculiar frequency in the disturbances of their health, no matter how carefully they are guarded against the causes which are known to produce these attacks. This proves, to him, conclusively that these children possess in their organism some peculiarity in the form of a special disposition, an increased readiness towards certain disturbances, a diathesis. Such a diathesis is not, however, a disease, but only a predisposition towards some forms of illness. Different of these dispositions may combine in one and the same individual. As to the manifestations of exsudative diathesis, he differentiates between primary, secondary and concomitant symptoms, as follows:

	Primary	Secondary	Concomitant to secondary
On skin	Seborrhoea of scalp and face intertrigo prurigo	Eczema, impetigo, abscesses	Scratching, restlessness, easily frightened disturbances of sleep.
On mucous membranes	Conditions of desquamation, swelling of different parts which are evanescent	exsudative processes angina palatina and pharyngea pharyngitis gastro-enteritis coryza laryngitis bronchitis bronchiolitis conjunctivitis phlyctena blepharitis balanitis vulvo-vaginitis cystitis	high fever, cough, vomiting, refusal of food. vomiting, pylorospasmus, colic, constipation, mucous-membranous diarrhoea, hay-fever pseudo-croup spasmodic cough bronchial asthma blepharospasm dysuria, ischuria
On lymphatic organs	Hyperplasia of palatine and pharyngeal tonsils hyperplasia of palpable glands in neck and around joints.		

Skin: The external integument being the one organ which naturally will show the changes due to exsudative diathesis most readily and at the same time most clearly, is therefore the organ in which this condition has been studied very closely.

According to Feer (21) eczema is the expression of a chronic constitutional abnormality. There is no acute ec-

zema only acute exacerbations. Acute dermatitis is mistaken for acute eczema, as is proven by the results of treatment. Eczematous conditions are not skin diseases "*sui generis*," but they are only the symptoms of a constitutional abnormality, often in connection with external stimuli. He prefers the term "eczematisation" which has been coined by Besnier, rather than eczema. The diathesis is the constitutional abnormality, the prevailing disposition of the organism, which leads to eczematisation under the action of contributory external noxes. Scrofular eczema is not merely the sum of tuberculosis and eczema, but through the tubercular infection of the organism the eczema acquires a changed character which gives it its specific appearance.

Bloch (7) sees in the diathesis a chemical allergia. To him the diathetic dermatosis is a reaction of the allergetic skin to accidental irritation, which latter may be either endogenous or exogenous in origin.

Raschmilewitsch (73) found that slight injuries to the skin, followed by irritation of the same (by mustard) caused a typical reaction, not only in children with manifest exsudative diathesis, but also in the latent cases, and in the newborn.

Mautner (56) on the other hand finds no difference between healthy and eczematous children in their reaction to cataplasms or to bacterial irritation, and that their reaction to mechanical and chemical irritation is slight and not specific. He comes to the conclusion that a specific relation between eczema and vasolability, reaction to maceration and to bacterial proteins cannot be proven.

Hirschberg (32) puts stress on the importance of heredity, disposition, disturbances of digestion and metabolism, for the development of eczema, especially in children.

Schlesinger (81) found the weight of infants with universal eczema and still more of those with localized eczema, especially during the first three months of life, not only to be good, but higher than in other diseases of infancy. At the time when the eczema develops an excessive or at least an increased gain in weight may frequently be observed. Only in moderately nourished infants with a very acute development of the eczema did he observe a standstill or a slight loss in weight. Whilst the gain is continuous and excessive the eczema will be very persistent, improvement can only be noticed when the gain is again down to the normal.

Schkarin (80) never missed other symptoms of a constitutional abnormality with eczema, such as exsudations into the skin and mucous membranes, which influence the course of nutrition. The diathesis comprises functional disturbances of the organism and also sometimes hyperplasia or aplasia of

some organ of internal secretion. Some eczemata he has been able to cure by simple dietetic measures, whilst in others the treatment is powerless and they will heal by themselves; these latter are the cases which are combined with spasmophilia, in which the exsudative diathesis and the spasmophile diathesis must be treated together. Of the children with eczema up to ten years of age sixty per cent had it during the first two or three years of life.

Moro & Kolb (62) see the inclination to intertrigo in early infancy, to urticaria later, and to reactive inflammations at school-age to be due to a liability in the vasomotors. They frequently observe in the other children of the families of their eczema patients sudden changes in color, headaches, fainting spells, pernioes and sudores.

Lymphatic Apparatus: Czerny (13) considers the affections in the lymphatic glands in exsudative diathesis never to be primary, but always to be secondary to pathological processes in the skin and mucous membranes. The condition of the lymphoid organs, the thymus, spleen, tonsils, intestinal follicles is independent of that of the lymph-glands. Their hypertrophy is due to overfeeding which favors the depositing of fat.

Benfey & Bahrdt (5) studied thirteen cases, none of whom had infantile eczema nor tuberculosis; these children were taller and lighter than normal, their skin was tender and transparent, they looked pale but not anemic, they had long eyelashes and long silky hair. The clinical picture in these cases was dominated by adenoids and by regional glandular swellings. The authors sometimes found a slight swelling of other superficial glands, due to frequent infections based upon the diathesis, which latter offers an increased disposition towards diseases. Only individuals thus predisposed react with catarrhs to noxes which do not produce nasopharyngeal troubles in other children. They believe in the existence of a "circulus vitiosus," namely: disposition AND infection, but not disposition OR infection.

Blood: Kroll-Lifschütz (43) regards eosinophilia as a co-ordinated symptom of exsudative diathesis, he found the following counts:

In healthy children	Eosinophiles 1.8 to 2.8%
In eczema children	Eosinophiles 5.5 to 26%
In children with strophælus or asthma	Eosinophiles increased
In children with lingua geographica	
or recurrent catarrhs.....	Eosinophiles normal.

Helmholtz (31) and Rosenstern (76) both find eosinophilia accompanying eczema.

Putzig (70) has investigated a large material with the most careful methods. He finds that healthy children have the

same eosinophile count as have adults, namely 2 to 4% whilst infants who later show signs of the exsudative diathesis have an increase in the eosinophiles quite early, especially in the third or fourth week of life. Acute infections and digestive disturbances cause a diminution of the eosinophiles. Typical eosinophilia was demonstrated by him in infants with skin-affections due to primary exsudative symptoms, but not with universal infected eczema nor intertrigo. Nor did he find eosinophilia to conform to the severity of the skin-eruption, as it outlasts this latter. He concludes that eosinophilia is a symptom of exsudative diathesis which may be regarded as a type of a protracted anaphylaxis.

Aschenheim (2) on the other hand considers eosinophilia as a special disposition, an eosinophile diathesis, which is not identical with exsudative diathesis but frequently combined with it. He comes to the following conclusions (1):

1. Eosinophilia is more frequent with florid eczema than with other manifestations of exsudative diathesis;
2. Eosinophilia disappears with the improvement of the skin-affections;
3. Eosinophilia cannot be regarded as a valuable symptom of exsudative diathesis;
4. Eosinophilia has not been found as a family-peculiarity where several cases have been observed in one family;
5. Eosinophilia may be found in healthy people who have never shown any signs of exsudative diathesis.

Respiratory Apparatus: Czerny (12) sees a great similarity in the affections of the air-passages to those of the skin. His views differ greatly from those of the French school, who consider asthma and bronchitis to be due to arthritism or herpetism, as for instance Goilav (25), Merkel (59) and Spolverini (87). Some children suffer from repeated affections of the same parts of the respiratory mucous membrane and in the same manner. One child has pharyngitis several times a year, another follicular angina, a third an infection of the pharyngeal tonsil, a fourth pseudo-croup, a fifth bronchitis diffusa. The different attacks are very similar, and we must therefore assume that the same local disposition exists as in seborrhoea, the difference consisting only in the form of the reaction to an equivalent pathological irritation.

Multiple infections of the air-passages must be regarded in the same manner, the irritation giving the chance for the infection, the same as it does in the skin. These children may frequently escape infection as long as they live in the country, but when they move into the city, they will acquire infections and their general health will then suffer. This explains inversely the benefit these children derive from climatic changes, which, however, do not cure the exsudative

diathesis, because upon the return of the child to its former surroundings the infections will reappear.

The irritation in the upper air-passages will cause an increase in the lymphoid tissue of the tonsils even in children who have not suffered from infections, though this will be more pronounced after repeated infections. The view that the enlarged tonsils cause the disposition to the infection of the naso-pharynx is erroneous, and this is proven by the fact that the infections continue after the removal of the tonsils. The apparent beneficial effect of the removal of the tonsils around the tenth to twelfth year is due to the fact that at this age the exsudative diathesis is on the wane. The infections do not start in the tonsils but from the mucous membrane around these.

The pathological conditions in the mucous membrane of the upper respiratory tract cause, in cases of exsudative diathesis, loss of appetite, which however is not a continuous anorexia, but one which comes on for longer or shorter periods, following periods of normal or even excessive appetite. During the anorexia the tongue is coated. These children have foetor ex ore from the disintegration of exsudates in the crypts of the adenoids. Sometimes they have constipation, and perhaps fever for a few days, but rarely longer than a week. Some children have malaise at this time, while others feel well though they are pale, this latter depends upon the irritability of the nervous system only. The children with large pharyngeal tonsils are frequently treated with strict diet for gastric disturbances, a so-called spoiled stomach.

When the exsudative diathesis appears in other parts of the respiratory mucous membrane the general condition of the child is frequently overlooked, especially is this the case in follicular angina. Some children with pharyngitis cough considerably, others do not, this depends upon the reaction of the nervous system.

We will also observe an interchangeability of the symptoms in the same child, for instance between follicular angina, pseudo-croup and asthma.

The so-called asthma of children, which was first described by the French school, is nothing else but an acute diffuse bronchitis, and it is observed very frequently in exsudative lungs, which may be audible at a distance, together with children. In these we hear first a whistling noise over the accelerated and shortened respirations; then we hear râles, which are more or less confined to the large bronchi, whilst the asthmatic symptoms depend upon the nervous condition of the child, in the same manner as the itching in prurigo.

Some children have these attacks of bronchitis every few

weeks or months, but without asthmatic symptoms, whilst others will become more and more asthmatic. We must, however, remember that the diffuse bronchitis is a part of the exsudative diathesis and not the asthma.

Digestive Apparatus: *Lingua geographica*—also called wandering rash, *Landkartenzunge*, *état lichénoid*, *desquamation épithéliale*, benign plaques, *lingua maculata*—is according to Groos (28) not a parasitic invasion but most likely constitutional, and is found in the hereditary-neuropathic type of individuals. He believes that a pathologic-anatomical basis for it can surely be found.

Lublinski (51) denies its connection with exsudative diathesis.

Klausner (39) considers it a congenital debility and consequent irritability of the mucosa of the tongue, and he states that dermatologists do not agree that it is part of the exsudative diathesis, and that they are still looking for its etiology.

Czerny (12) however, regards it as one of the first symptoms of exsudative diathesis, which may at times be seen during the first month of life, but only in the living child. According to him it is a painless exsudation into the mucous membrane which makes the papillae appear enlarged and prominent. The increased desquamation makes the affected parts to look white. It is very evanescent and not depending upon the general health of the child.

Lieblein (50) examined six cases in young people with pronounced lymphatism, but in no case did he find, either macroscopically or microscopically, an inflammation of the appendix; he found, however, a considerable hyperplasia of its lymphatic apparatus and very long appendices. Although the symptoms disappeared in every one of his cases after operation, he has not yet been able to find a satisfactory explanation for this condition.

Langstein (46) could not find any pathogenic organisms in many cases of infants in whose stools he had noticed pus. These infants had the clinical manifestations of exsudative diathesis, and he believes that in exsudative diathesis a special disposition to intestinal symptoms exists, which will result in mucus in the stools in light cases, and pus in severe ones. In two of his cases he also found eosinophilia of a pronounced type. He sees in the hyperplasia of the intestinal follicles, which was first described by Czerny (13), the reason why infants with exsudative diathesis react to noxes which do not affect healthy infants.

Genito-urinary Apparatus: Lust (52) found in the sediment of apparently normal urine, which he had centrifuged, epithelium and a few leucocytes as a sign of a process of

desquamation in the uro-genital mucosa in more than fifty per cent of the children with exsudative diathesis. He sees in this a possible explanation why pyelo-cystitis in boys is more frequent with exsudative diathesis.

Beck (3) in his study of forty cases of his own confirms Lust's findings of desquamative processes on the mucosa of the efferent urinary passages.

Nervous System: Saenger (78) considers the psychic element very important as supplementing the somatic disposition of exsudative diathesis.

Czerny (14) lays stress upon the close connections between the neuro-psychopathies and exsudative diathesis, though he does not look at this as causative but only as a combination. Frequently the education of the child has been erroneous, owing to the exsudative diathesis and thus the neuro-psychopathies are favored. This explains the remarkable results which have often been observed under psychic treatment in children with obstreperous eczema or asthma, sometimes also in processes originating in the naso-pharynx. Fattening or rest-cures or medication do not help here, only radical changes in the mode of living and in the education of these children will be effective, and this often only if carried out away from home.

Pfaundler (66) calls the attention of the physician to the cases, which we see so frequently, in which the symptoms of the lymphatic constitution are combined with those of neuropathy, to form, what he calls neuro-lymphatism. In these cases the nervous manifestations, the severity of the reflexes, are of special importance, as for instance the spasmodic sneezing in coryza, the pseudo-croup in laryngitis, the pertussoid in bronchitis, the asthma in bronchiolitis, severe colic and muco-membranous diarrhoea in enteritis, enuresis in balanitis, blepharospasm in conjunctivitis. Pediatricists know that these symptoms are usually observed in children who had been overfed with milk and eggs, and whose education had been faulty, whilst race and nationality are of no importance. The treatment of these patients is psychic and dietetic, suggestion with severe shocks is often beneficial.

Czerny (12) explains that the severity of the itching is dependent upon the degree of irritability of the nervous system. The itching causes the children to scratch, and then the danger of a secondary infection and thus an eczema is great. He also states that the less the morbidity of the child, the better will be its physical and psychical development. He warns physicians not to neglect the child's psyche over its body. He also warns against the dangers of making the child neuropathic by letting it feel that it is always a patient. Polypragmasy must, therefore, be avoided, the atten-

tion of the child must be detracted from its own body, nobody must talk about the child's looks or bodily functions in its presence. The child with exsudative diathesis must not be made to feel that it is sick or that it requires special care. It will best be as much as possible in the company of other children of the same age, and as little as possible with adults. The external signs which will warn us that we should pay more attention to the child's psyche, are frequent and sudden changes in its color, which are not due to anemic but to vasomotor disturbances. The avoidance of accidental affections will also have a beneficial effect upon the child's psyche, because sickness interferes with its education and favors neuropathy.

The Eyes: Igersheim (36) found in seventy per cent out of 152 children with phlyctena a positive v. Pirquet reaction. He therefore looks upon patients with phlyctena as tuberculous, or at least highly disposed towards tubercular infection. He urges in these cases the treatment of the exsudative diathesis, and he advises great care in keeping these children away from people suffering from tuberculosis.

Metabolism: Menschikoff (58) has investigated the metabolism of children with exsudative diathesis and he finds that they react easier to differences in the ingestion of chlorine, increases as well as decreases, and more so with manifest than with latent exsudative diathesis.

Bernis (6) and Kern (38) look upon the change in the nitrogen-metabolism as characteristic. The latter found that children with exsudative diathesis have a delayed excretion of uric acid, and he assumes from this a connection to exist between this diathesis and arthritis urica.

Lederer (47) blames a disturbance in the metabolism of water.

Steinitz & Weigert (89) find a decrease in the metabolism of fat and nitrogen.

Czerny (15) is convinced that the metabolism of fat is disturbed.

Finkelstein and Meyer claim to have found the reason for the changes in the altered metabolism of the salts.

Connection with other Diseases: v. Hansemann (29) states that many diseases develop upon the basis of either acquired or congenital constitutional abnormalities, which consist in anatomical or metabolic changes. The composition of the body-juices and the activity of the cells form the medium through which the growth of the pathological elements may be either favored or destroyed. Some causes, like colds, or general diseases, like gout or ricketts, also age and inheritance will cause a change in the composition of the body-juices.

Unterberger (93) sees in the lymphatic constitution a fac-

tor which is of paramount importance, especially in the development of tuberculosis, against which the action of the bacteria may be neglected. In the prophylaxis of tuberculosis this constitutional abnormality must be corrected first of all and the destruction of the bacilli is then of minor importance.

Rozenblat (77) is doubtful about the connection between serophulosis or tuberculosis, which he regards as identical, and exsudative diathesis.

Czerny (17) clearly defines his standpoint when he writes: The identical infectious agent does not produce similar clinical pictures in different individuals. This is due only partially to the quantity or quality of the microorganism or its location in the body. The appearance of certain symptoms of infectious diseases and their course depends mainly upon individual constitutional abnormalities. These may be either congenital or acquired, they may affect either single organs or the whole body.

Thus only a very small number of infants die solely from uncomplicated digestive disorders. The majority of these infants get sick owing to their abnormal disposition whilst they are taking a food which would not seriously damage normal infants.

The same is true of the infectious diseases in older children, in whom the influence of the neuropathic constitution is especially strong, due to the lability of the innervation of the blood vessels. This is very pronounced in pertussis.

The normal human tissue possesses an excellent mechanism for the regulation of the retention of water, in some, however, this is congenitally defective, they will then have a tendency towards a considerable retention of water, which may even lead to edemata, and will also cause a great lability in the body-weight. A pathological retention of water is seen most frequently under a carbo-hydrate diet, and these children are then often considered plump. As infections are very dangerous to water-logged children, we must reduce the water in the body prophylactically, and this especially as regards tuberculosis, since we know that miliary tuberculosis and tubercular meningitis occur mostly in stout children. Czerny warns for the same reason against the overfeeding of tuberculous children.

Engel (19) is of the opinion that serophulosis develops upon the soil of exsudative diathesis, the infection with the tubercle bacillus being added to the constitutional abnormality. Tuberculosis can also increase or bring out the symptoms of exsudative diathesis, the same as would any other infectious disease, the more so because tuberculosis causes a long-continued irritation, which makes the symptoms of the

exsudative diathesis so much severer. On the other hand tuberculosis may also cause in children with exsudative diathesis a severe allergia as shown in the much increased sensitiveness to tuberculin; this is what makes scrophular symptoms so characteristic.

If we add to this, amongst the poorer classes, poor food, dirt and deficient hygiene, we will get so much more readily the inflammations and catarrhs which are based upon the constitutional sensibility and which are increased by the sensibility due to the infection. This then will produce the *habitus scrophulosus*.

Scrophulosis must therefore be regarded as a disease produced by the cooperation of exsudative diathesis and tuberculosis, though other noxes may produce similar clinical pictures in cases of exsudative diathesis.

(To be continued in July issue.)

Anthrax Due to Shaving Brush. The Hospital mentions the case of a man who died in the West London Hospital last summer after an illness of $2\frac{1}{2}$ days of cellulitis of the neck determined post mortem to be anthrax. He had just begun using a new shaving brush which, fortunately, had not been washed subsequently. Anthrax bacilli were found in this brush and also in 4 out of 5 new brushes of the same batch. (Note: While rinsing with hot tap water at approximately 70 degrees C. kills, inhibits or mechanically removes most germs, bacteria or others, liable to be present or to be conveyed to brushes, it is a wise plan to soak for an hour or so a new tooth, nail or shaving brush in strong bichlorid solution after preliminary washing and before putting the brush into commission).

Paravaccinal Typhoid Hepatitis. Sirot, La Caducee, Dec. 15, 1915, calls attention to the fact that after typhoid vaccination, there may be a more or less delayed malady, resembling typhoid, even to the appearance of rose spots and phlebitis. This occurs in two distinct types, one a general condition, the other localized in the liver which he considers a hepatitis.

Early Diagnosis of Eruptive Fevers by Use of Cupping Glass. d'Oelsnitz, Soc. Med. des Hop., Oct. 22, 1915, advocates this method to develop the rash early. Measles shows itself as a persistent image like a geographic chart. Scarlatina shows a fine, irregular ecchymotic stippling. If a rash develops ecchymotic patches, it is a prognostic indication of a haemorrhagic tendency.

Symposium on Tuberculosis

(1.) Under existing conditions, especially the impossibility of altogether removing foci of infection, do you consider tuberculous infection to depend rather on the virulence of the organisms or on the susceptibility of the patient? (2.) Aside from climatic and hygienic methods, do you advocate any medical treatment as having any direct action on the disease—disregarding symptomatic treatment for complications and for temporary relief? (3.) What is your opinion as to the therapeutic action of germ derivatives?

Vincent Y. Bowditch, M. D., Boston, Mass.

1. It would seem to me impossible to answer this question with any degree of certainty, for the two conditions are so essential in differing degrees in all cases of tuberculosis. We certainly see cases of disease coming at times like a bolt from a clear sky in people who up to the time of its appearance have been the "picture of health." Under such conditions, the virulence of the germ would **seem** to be largely the determining factor of its appearance, and yet we have at the same time no positive proof that it is not due to some special susceptibility to the disease in one who has appeared to be well. My **impression** is, and I cannot say more than this, that the weight of evidence would be in favor of the susceptibility of the subject rather than the virulence of the germ itself as the determining factor of its appearance in the majority of cases. As I have said, however, I cannot see how this can be positively proven.

2. Apart from hygienic and climatic methods, I know of no medical treatment in which I place any faith other than the use of tuberculin in the carefully selected cases which are so situated that they can be carefully watched. From having taken an ultra-conservative position in former years against its use, I have finally in later years come to the conclusion that certain cases (not all) which under ordinary methods were gradually growing worse or were at an apparent standstill, have been greatly benefitted after the continued use of tuberculin in very small, gradually increasing, doses. As to which cases are likely to receive the greatest benefit, it is impossible to lay down any definite rule, it being a question of experimentation, more or less, in each case. As a rule, I believe patients who show temperature should not be treated in this way. I have the strong impression, too, that cases who have been treated successfully in this way are less liable to relapse than those who have not had it; this opinion being held in former years also by the late

Dr. Trudeau, who, while conservative in its use, believed it was of benefit in many cases.

3. If by this question is meant the therapeutic action of tuberculin, I have supposed that its favorable action was due to a stimulation of the blood supply to the affected part, thus favoring a condition of healing and later cicatrization. This would seem to be at least a plausible theory.

Leroy S. Peters, Albuquerque, N. M.

In the light of present ideas on infection and immunity in tuberculosis, it seems to me that the susceptibility of the patient is far more important than the virulence of the organism, although, of course, we might say that that might play a minor role. The question of infection in tuberculosis no doubt depends upon the immunity conferred by repeated inoculations in infancy or early childhood, and if the proper amount of immunity is established that patient passes through life with only tuberculous infection and not tuberculous disease. These new theories have been advanced by German investigators for a number of years and are now beginning to cause much discussion in American literature.

The medical treatment of tuberculosis has absolutely no direct action on the disease, inasmuch as today we recognize no specific. However, I believe that the hypodermatic injection of such tonics as iron arsenite and strychnine and any other medication that may tend to build up the general condition is indirectly of benefit. The treatment of complications and drugs for temporary relief must of necessity have their place.

As for the therapeutic action of germ derivatives I believe as yet we have none that is of especial value. Harking back again to the immunity produced in early infancy and childhood, the tuberculin or serum to be of value must of necessity contain the living tubercle bacilli, and I believe that the tendency of prevention in tuberculosis lies along this line. When we consider the pathology of the disease and the biology of the tubercle bacillus the question of a specific seems almost impossible, and to make any headway in the eradication of this disease it will be necessary to fight it from the standpoint of prevention.

Dr. Karl von Ruck, Asheville, N. C.

In the present state of our knowledge, concerning the mechanism of any bacillary infection, it is impossible to

separate the roles played by the virulence of the infecting bacteria, and by the susceptibility of the infected organism. Both factors are relative. The virulence of an infection may be increased by great numbers of the invasion; also by a very direct and close infection (from person to person) so that the bacteria, discharged from the host-organism, cannot be exposed to weakening influences before they are taken up by the newly infected organism.

These conditions would tend to overcome a resistance which is sufficient under usual conditions to withstand an ordinary infection. On the other hand, the resistance of the organism may be lowered by other diseases (influenza, typhoid fever, measles, whooping cough, etc.) to such a degree that a tubercle bacillus infection, which hitherto has been held latent, now becomes activated, or that a comparatively slight new infection will suffice to produce disease.

The only medicinal treatment that can possibly have any direct action upon tuberculous disease, is that with preparations derived from tubercle bacilli. Neither drugs with general (tonics, etc.) action, nor the germicides can influence the disease directly; in short, there is at present no specific chemical known which would influence tuberculosis in the same manner in which mercury and arsenic influence lues, or quinine malaria. The only direct influence is possible from specific etiological treatment, and this I advocate with certain restrictions very decidedly. Only purely tuberculous, that is to say, uncomplicated cases of the disease can be expected to respond promptly to specific treatment; in all cases with associated infections or with much destruction of tissue, the concomitant conditions tend to limit the usefulness of the specific treatment.

The action of germ derivatives is that of stimulating the tuberculous organism to produce specific antibodies against the tubercle bacillus, which may destroy the virulence and viability of the bacilli and also neutralize the toxins which reach the circulation, resulting from breaking-down tuberculous tissues.

Under proper conditions, the action of a suitable derivative of the tubercle bacillus is promptly curative; under other conditions it can only arrest the tuberculous process, while associated complicating conditions and disease processes must be treated by other means. With a careful selection of cases, and under a proper and individualizing use of tubercle bacillus preparations, the clinical results are very much better than are those obtained by the general methods alone; they are also more lasting and less prone to be followed by recurrences of the disease.

**Dr. Edward R. Baldwin, The Trudeau School of Tuberculosis,
Saranac Lake, N. Y.**

Under question (1) as to the relative importance of the organism or the susceptibility of the patient, I would say that it seems to me that the question is rather undecided as yet. At the same time there are so many possible answers that it makes it difficult to say which is the important factor in any given case. In some instances no doubt virulence of the bacillus has much to do with the fact that the patient does not resist. In these cases, however, we do not know the dosage nor the place of primary infection and how disseminated the disease may have become in the first moment of invasion. I believe that all human beings are susceptible to the bacillus when it is planted in the right place. Very much, though, has to do with keeping off the infection in the general health of the individual. Doubtless, susceptibility is another name for conditions favoring infection including virulence of the bacillus, dosage, points of infection, external conditions of life, work, food, etc. As to the actual susceptibility of the **tissues** to the invasion of the bacillus we know little. There are certain racial and other differences which make for an acute form of the disease as contrasted with the more chronic form. Doubtless this is a matter of tissue resistance rather than general resistance. The secret of these differences is as yet unsolved.

Under the head of (2 and 3), aside from climatic and hygienic methods I do not feel that we have any specific treatment except tuberculin in some form. I advocate tuberculin to a very moderate extent in patients who have reached a stationary point in their improvement, have no acute symptoms, i.e. no fever, but do not seem to overcome the tendency to slight relapses from time to time. I believe that such patients must be in the best of nutritive condition in order to obtain benefit from tuberculin. Certain forms of tuberculosis, notably that of the skin and glands, which are ordinarily called surgical tuberculoses, are quite amenable to specific treatment in the form of tuberculin and very excellent results are obtained in these cases. In general, however, I believe that tuberculin treatment is too often used without discretion and discrimination as to the type of disease. A certain amount of familiarity with clinical tuberculosis and knowledge of the principles of vaccine therapy is a prerequisite for successful tuberculin treatment.

Dr. Lawrason Brown, Saranac Lake, N. Y.

I believe that tuberculous infection does depend in part upon the virulence of the organism. I mean by this that

exposure of tubercle bacilli to light gradually weakens them. If anyone inhales such tubercle bacilli it is possible that they may have a slow or more chronic type of disease, though this can well be questioned because of the fact that if all the tubercle bacilli are not killed their progeny may quickly regain their usual virulence. The susceptibility of the patient is, I believe, an important factor, particularly later in life when many persons have been infected and probably only develop clinical disease when their resistance is greatly reduced. I know of no medical treatment that has been proved scientifically to have any direct action on the disease, disregarding symptomatic treatment. The vast majority of patients who are treated with derivatives of the tubercle bacillus derive, in my experience, little benefit. A few are wonderfully helped. I still feel that we have not exhausted all the possibilities of so-called specific therapy, but that we may yet by various procedures be able to determine what form of antigen certain patients may require, and use them in these cases with benefit.

George Thomas Palmer, M. D., President of the Illinois State Association for the Prevention of Tuberculosis; Director of the Springfield Open Air Colony; Medical Director of the Springfield Tuberculosis Dispensary, Springfield, Illinois.

For purposes of practical application I have become accustomed to differentiate rather sharply between tuberculous infection and the development of tuberculous disease, assuming that tuberculous infection often occurs without the slightest evidence or suspicion of it on the part of the individual affected. The infection may be so remote from the development of the disease that the time of infection may never be determined.

In fact, we have come to believe that thousands of individuals go through life "infected" with tubercle bacilli who never have the slightest clinical history of tuberculosis.

The important point there, is the development of tuberculous disease and in this I am impressed that the susceptibility, or the reduced resistance of the individual is an infinitely greater factor than the virulence of the organism.

Assuming that a very large percentage of people carry dormant tubercle bacilli for years or throughout life, there is more than a smattering of truth in the assertion that "tuberculosis is quite as much a disease of nutrition as an infection."

In my opinion, the treatment of tuberculosis consists of the so-called "hygienic measures" in which climate is a fac-

tor of less importance than rest, fresh air, nourishment or rigid discipline with careful medical supervision. Aside from meeting complications and symptoms, I have never found a medicinal agent to have any material effect upon the course of the disease.

I am convinced, however, that tuberculin has a distinct place in the treatment of cases of tuberculosis in which there is not evidence of disease activity,—elevated temperature, tendency to hemorrhage, marked digestive disturbance, greatly accelerated heart action or other evidence of toxemia. The indiscriminate and injudicious use of tuberculin,—which is far more wide-spread than we have been accustomed to suppose,—has done an infinite amount of harm.

Reports of clinical experience, even when accompanied by apparently painstaking laboratory investigation, are at times painfully conflicting and the evidence presented in the case of germ derivatives in the treatment of tuberculosis is open to this criticism. A careful and unprejudiced summary of the entire available literature of specific therapy in tuberculosis will lead us to no very definite conclusion. The final decision in the matter cannot be given and we must rely for the time being upon the opinion of those whose clinical experience is sufficiently large and sufficiently varied in character to be convincing.

In my sanatorium work, where the patient is rigidly controlled and surrounded by ideal conditions, I cannot convince myself that tuberculin or other “germ derivatives” are especially effective. I have not been able to show that those patients receiving tuberculin do much better than those who do not receive it.

In office practice, dealing largely with ambulatory and non-active cases, chiefly among persons having good home conditions, the results are often so definite that they cannot be ignored, nor can the improvement be entirely credited to the regulation of the lives of the patients.

In dispensary practice, however, where the home conditions are uniformly bad and regulation of the patient most unsatisfactory, the results obtained from the judicious use of tuberculin in carefully selected cases, stand out most convincingly. Here there can be no question whatever as to which of several therapeutic agencies shall be credited for the benefits obtained. In my opinion, the dispensary is the place to study the real results of specific treatment and I believe that dispensary experience will justify the continued use of tuberculins and other “germ derivatives” provided the cases are properly selected and provided tuberculin is not employed as a matter of “routine.” Tuberculin treat-

ment will not succeed as "routine treatment" for unselected groups of patients.

Dr. Henry Barton Jacobs, The National Association for the Study and Prevention of Tuberculosis, Baltimore.

In answering the questions propounded, I do so with a great deal of hesitancy because of the doubt which still must exist in the minds of all as to our complete knowledge of the subject.

It would seem from the fact that tuberculosis is found chiefly among the poorer people of a city or a country and where the hygienic conditions are poorest and where intelligence is least, and the quality of food poorest and work the hardest, that the susceptibility of the patient is of greater moment than the virulence of the organism. This view, too, is supported by the fact that so many people when placed in better surroundings and more favorable conditions of hygiene and food recover. In other words, their resistance overcomes the virulence of the organism, so that it was susceptibility in the original instance which caused them to become victims of the disease.

In answer to your second question, I should say that so far as my experience goes, the only treatment yet proved of value is that which may be embraced under your definition of climatic and hygienic methods, although by the word climatic I do not mean there is great specific value in particular climates. A free open-air life in any locality under proper supervision and in hygienic surroundings with sufficient food and rest and exercise, if that be indicated, seems to be the form of treatment which secures the most favorable results. In certain carefully selected cases the production of artificial pneumothorax seems to be a favorable adjunct to the hygienic treatment.

In regard to your third question of the therapeutic action of germ derivatives, I think there can be no question but that tuberculin in a small group of cases not only hastens recovery, but insures more permanent results.

**L. B. McBrayer, M. D., Supt. and Chief of Bureau, The North Carolina Sanatorium for the Treatment of Tuberculosis,
Bureau of Tuberculosis, State Board of Health,
Sanatorium, N. C.**

I consider the removing of the foci of infection very important, in fact, all important in the prevention of the spread of the disease. I do not regard it an impossibility, but think the focus of infection should be isolated in the home if it

cannot be removed to a sanatorium. Certainly nonvirulent tubercle bacilli will not produce tuberculosis. I do believe that long continued exposure to the ordinary forms of the tubercle bacillus will produce infection, in old as well as young. We know of no specific medical treatment of any value. Germ derivatives have not proved to be of any value so far as we can discern.

Dr. Charles L. Minor, Asheville, N. C.

Whether tuberculous infection depends rather on the virulence of the organisms or on the susceptibility of the patient, is a question that cannot be accurately and scientifically answered, and of which at best I can but give my general impressions.

Personally I think the susceptibility and low vitality of the patient is a much more important element than the virulence of the organisms infecting, and that if we could keep up the vitality of our submerged tenth, who are the chief victims of this disease, by good feeding, proper living, better habits, better tenements, better hours of work, better habits of recreation, we would see a great decrease in tuberculosis.

Moreover, we cannot control the virulence of the organisms, so it is useless to worry on this side of the question, and we should direct all our attention to the patient. As I have again and again insisted, after all the tuberculosis problem is more of a sociologic than medical problem, and is to be solved more by the philanthropists and the hygienists than by the practicing physician.

You ask secondly, if aside from climatic and hygienic methods I advocate any medical treatment as having any direct action on the disease, disregarding symptomatic treatment for complications and for temporary relief? What is my opinion as to the therapeutic action of germ derivatives? I suppose by this question you would ask whether I believe there is as yet any specific treatment for tuberculosis. I do not. There are a certain number of cases in which tuberculin works remarkably and beneficially, but their number is small and it is impossible to tell beforehand in what individual case Tuberculin would be suitable and beneficial. If we could tell this, if our indications for its use were sharp, accurate and scientific, it would be a much more useful and wonderful remedy than it is. As it is, the majority of special workers in this line, I think, (certainly in this country and even in Germany, where there are many enthusiasts over Tuberculin) still look upon it with consider-

able doubt; and while using it in selected cases, have not the great hopes for its use that one time we had.

**Mazyck P. Ravenel, M. D., University of Missouri,
Columbia, Mo.**

In reply to your questions, I beg to make the following statements, although it is very hard to give categorical answers.

1. The disease resulting from the infection of a given individual with any organism is the resultant of the virulence of the organism on the one hand, and the resistance, or susceptibility, of the patient on the other. The dose is also a most important factor, especially in tuberculosis. I take your question, however, as an attempt to determine the relative value of practical measures for prevention. With this in view, my opinion is that the susceptibility of the individual plays a more important part than the virulence of the organism, consequently we can do much practical good by building up the resistance or immunity of the individual.

2. I do not advocate any medical treatment as having any direct action on tuberculosis, believing that no drug has been discovered which has the slightest curative or specific effect.

3. The therapeutic action of germ derivatives, by which I understand the tuberculins and vaccines, comes nearer to giving a specific action than anything known. I believe that they should be used in all cases where there is no contrary indication.

**F. M. Pottenger, A. M., M. D., LL.D., Medical Director, The
Pottenger Sanatorium, for Diseases of the Lungs
and Throat, Monrovia, California.**

Practically every child begins to come in contact with tubercle bacilli in one way or another soon after birth. If the bacilli are few in number the probabilities are that they are destroyed by the natural defenses of the child. During their destruction the cells gradually acquire the property of producing a specific defense against the tubercle bacillus and its products; so, after a short time, the child probably has both a natural and specific defense against the tubercle bacillus.

There is no doubt that constitutional susceptibility does play a part in infection, but, as yet, we have no way of even guessing at the nature of this susceptibility. The question of local susceptibility is one that is difficult to answer. Prior to the age of puberty, any tissues of the body may be in-

volved; but, after this, pulmonary infection is far more common. I believe that this depends upon the anatomical and developmental peculiarities of the apex of the lung.

Everything that we do in the cure and treatment of tuberculosis is indirect. We have no definite method of attacking the disease that compares in any way with antitoxin in diphtheria; but we are left to indirect measures. These may be put in two general classes; first, the specific products of the tubercle bacillus, which either come from the focus of infection in the diseased area, or may be introduced artificially from without. Without these products a specific defense cannot be maintained or increased, and this specific defense is essential to the cure of the infection. This specific defense manifests itself as a reaction between the tubercle bacillus and its products, and the body cells. As a result of this action there is produced, in and near the focus of infection, a reaction which is accompanied by hyperaemia and followed by increased fibrosis. Not only are the specific products of the tubercle bacillus essential to cure, but, it is equally essential that the functional capacity of the body cells be such that when stimulated they are able to react in such a way as to heighten the specific defense.

There is nothing specific in hygienic and sanitary methods; nothing specific in fresh air, food, or properly adapted rest and exercise. Neither is there anything specific in tonic measures, whether they be medicinal or physical; but, each one of these measures has an influence in improving the functional capacity of the body cells and, to the extent that they do this, do they add to the fighting chances of the patient.

It is important that the medical profession, and laymen as well, realize that open air is not a cure for tuberculosis, and fix definitely in their minds the action that this remedy has. A suitable tonic, if it is sufficient to raise the balance of resistance in favor of the individual, will aid in the cure of tuberculosis. Sometimes, in early cases, simply a matter of changing vocation, or a few weeks rest from business worries and cares, will turn the tide in favor of the patient just as effectually as the usual open air method in another case. Improvement in the mental attitude of the patient will also often improve the functional capacity of the cells to such an extent that healing may result. So, if I were to make a statement regarding the value of these remedies, I would say that any measure, or any combination of measures, whether it be fresh air and food; or some tonic and food; or tonic and fresh air; or suitable baths and rest; or the proper mental attitude; or whether it be the application of measures which will relieve existing toxemia or complications, pro-

duces a favorable result to the extent that it is able to improve the general functioning capacity of the body cells.

From this you can draw the conclusion that any therapeutic measure which will raise the functioning capacity in an individual organ, or of the body cells as a whole, is of value in the treatment of tuberculosis. None of them are cures, but all of them may be aids.

The specific derivatives from the tubercle bacillus, the same as fresh air, good food, psychotherapy, and other tonic measures, are of value in proportion to the manner in which they are applied. I consider the derivatives of the tubercle bacillus among my best aids; and, the more experience I have in their use, the more I feel confident of their value. The great misunderstanding which arises in regard to the use of the derivatives of the tubercle bacillus in therapy, is based on a misconception of what they are and what they are expected to do; I might say a failure on the part of the men who use them in not studying them carefully and learning to apply them as they should be applied. These products should not be considered as absolute specifics. They are not able to produce a reaction within the human body that is sufficient to wholly immunize against the tubercle bacillus; but, if they are taken for their true value, they are extremely useful. Each product will produce defensive properties on the part of the body cells against those particular products of the tubercle bacillus which it, itself, contains. If it were possible to give to the body cells the entire tubercle bacillus in solution, or in a manner that it could utilize it in exactly the same proportion that it is found in the bacillus itself, I do not doubt that we could come nearer obtaining a specific result; but this we have not been able to do, so far, successfully. Whether or not the bacillus produces a complete immunity we must not lose sight of the fact that any preparation made from the tubercle bacillus will produce a focal reaction; and, in producing a focal reaction, it will cause a hyperaemia about the focus of infection, which stimulates the local cells to increased formation of fibrous tissue and hence favors healing.

J. P. Crozier Griffith, M. D., Philadelphia

It goes, of course, without saying that without the conveyance of an infection by the tubercle bacillus there can be no tuberculosis. Consequently every effort must be made to prevent such infection; and I believe that it can be accomplished in very many instances. On the other hand, it is certainly equally true that although many subjects will develop tuberculosis if tubercle bacilli reach them, the majority,

perhaps, need this constitutional or local susceptibility. The local susceptibility may be, of course, only a temporary one, dependent upon some local irritation, as of the mucous membrane in some portion of the body. Consequently in the way of prophylactic treatment all measures possible must be taken promptly to relieve such irritation as soon as discovered. Apart from this I believe the chief treatment must be hygienic and sanitary. I have very little confidence indeed in the employment of any drugs, and I doubt the value of any specific derivatives from the bacillus, at least at the present time. Possibly in the future some such prophylactic measure may be developed.

Note by the Editor: We wish to express our gratitude to the gentlemen who have so kindly responded to the invitation to take part in this symposium. It will be noted that there is substantial agreement as to the importance of susceptibility though, since tuberculosis obviously depends upon infection with the tubercle bacillus, it is difficult to word either a question or an answer so as to compare the two factors involved. In this connection, we may reiterate a personal belief that tuberculosis is the only specific infectious disease which is at all common in this country, in which the general health and resistance of the patient (aside from specific immunity) has any marked influence on the question of development or non-development of the disease after potentially efficient exposure. This statement will probably be received with incredulity but, before expressing disapproval, check off the various infections, one by one, and record your opinion as to each. We are inclined to think that you will concede the contention as to the exanthemata and the venereal diseases, as to typhoid if you consider actual experience and not a priori impressions and that, in the end, you will hesitate only regarding diphtheria and pneumonia. As to the former, the relative importance of local lesions as compared with general health must be granted as a qualification, but there is an undecided problem as to the existence of specific immunity, awaiting further experience with the Schick test and whatever modifications it may eventually undergo. As to pneumonia, it should be remembered that the definition, from the practical standpoint of statistics, is not yet based strictly on an infection with a definite micro-organism, but that it involves location and nature of pathologic process. In the case of tuberculosis there is, **apparently** a very marked difference between the chances of development, according to general health. Very rarely does one encounter tuberculosis in a person who is or has recently been in good general health, according to ordinary superficial standards—and we

use this expression so as to excuse the real absurdity of speaking of a tuberculous person as being in good general health. On the other hand, we are inclined to believe that many physicians diagnose as incipient tuberculosis what is merely anaemia, auto-intoxication, or some transient interference with nutrition, not to mention the false diagnosis of some really serious disease of an entirely different nature. Yet, it may be that, for tuberculosis as for other infections, the general health in a crude sense, has very little to do with the development of the disease, the apparent, pre-tubercular, failure of the general health, being really the result of an antecedent infection which has been more or less strictly latent.

It will be noted that all the authorities who have contributed their opinions, express themselves negatively as to the real therapeutic value of any medicinal agent in the ordinary sense. So general an agreement is highly important although, of course, somewhat disappointing. It may be well to confess that this concurrence of opinion is especially valuable to the editor who, without in any sense considering any single remedy as curative, has relied to some degree upon antiseptic chemicals and those supplying certain more or less putative deficiencies in the metabolism of the tuberculous, and especially upon certain animal extracts.

The opinions as to derivatives of the tubercle bacillus differ considerably. But it is significant that they are all negative so far as the indiscriminate, inexperienced, and uncritically optimistic use of these substances is concerned.

It will be noted that Dr. McBrayer speaks hopefully of the possibility of control of foci of infection. We have elsewhere expressed the opinion that, since various European countries practically stamped out leprosy by drastic measures of segregation and crude but efficient means of disinfection—largely by fire—many centuries ago, analogous measures might come quite as close to extinguishing tuberculosis today.

In propounding the questions for discussion, it seemed best to exclude the details of hygienic and sanitary methods but, especially as the County Hospital for Tuberculosis has been made a shibboleth in this state, there is one point which ought to be definitely settled. Can satisfactory preventive and arresting "cures" be conducted by each county, or other local government, within its own confines or conveniently near, or are certain climatic factors, such as altitude, relative humidity, amount of sunshine, rainfall, wind movement, average and extremes of temperature, etc., of vital importance as has been held in the past? This is no academic question but one of the highest economic, humanitarian and even in a sense, political importance. If specific climatic differences

are of no importance in preventing and curing tuberculosis, the present propaganda for the establishment of county hospitals, should be supported by the united medical profession, even to the extent of making them political issues. If any one or more of the items that go to make climate are of importance in the prevention and cure of tuberculosis, it is plainly both an economic and a humanitarian error to urge the county hospital or any other analogous local philanthropic unit, unless for such localities as happen to be favorably situated. It is scarcely necessary to point out that the decision that certain climatic conditions are of importance in controlling tuberculosis, immediately removes the general problem both from the county, or city, and from the state and renders national control necessary.

We would consider it a favor if the participants in the present discussion would further express themselves upon these outgrowths from it, and we would also welcome expressions of opinion from others.

Cold Abscess of Tongue. Venot and Arnould, *Gaz. Hebd. des Sciences Med. de Bordeaux*, Dec. 12, 1915. The patient was a man of 50 with laryngeal and pulmonary tuberculosis. The tumor was first noted in May and had enlarged to the size of a hen's egg. There were several small lymph nodes on the same side of the neck and one had suppurated on the opposite jaw. On evacuation, the pus showed tubercle bacilli but no growth was obtained from cultures. Several punctures were made followed by injection of iodoform in ether, the tumor now being of the size of a small nut, sclerotic and probably cured.

Localized Tetanus. Ch. Monod, *Acad. de Med.*, Nov. 23, 1915, reports a case with spasms of the upper limb, after healing. Large doses of chloral and injections of 10 C.C. of 25% solution of magnesium sulphate, 32 injections in 13 days, were employed. The author states that the symptoms correspond with the description of Follin except that the latter holds that such cases are as severe as general tetanus—implying recovery in the case mentioned.

Antityphoid Vaccination in the Course of an Epidemic. Liabot, *Jour. des Prat.*, Dec. 18, 1915, was called to see a man of 54. He also found his three daughters at the beginning of typhoid. Other cases developed in the neighborhood and he vaccinated the whole community except those in whom typhoid had actually developed, young infants and the very aged. No further cases occurred and no mention is made of serious reactions.

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A Matter of Botanic and Zoologic Analysis.

A large and important group of diseases are caused by germs. We use this term because, when one checks off the list, he is surprised to find how many pathogenic organisms are animal and how closely analogous are the infections caused by vegetable and animal organisms. The term is objectionable because used in different senses and the term micro-organism is objectionable because there is no sharp dividing line between very minute and fairly large organisms, indeed, there is no conspicuous division as one progresses from infections supposed to be due to ultra-microscopic organisms up to a 20-foot tape worm through such conditions as trichinosis, however marked the contrast between the typic infection and the ordinary infestation with a "parasite" in the limited sense.

We have searched in vain for general characteristics that would separate diseases due to bacteria from those due to other vegetable germs such as the actinomyces, and the rather vaguely described organisms of sporotrichosis, etc., those due to minute protozoa, such as malaria, and those due to macroscopic but minute animal parasites or larval forms of larger parasites. In the case of many minute germs, more or less definitely associated with specific infections, the assumption of vegetable or animal nature seems to be without actual demonstration, if indeed the two kingdoms do not actually merge in undifferentiated organisms and, in regard to spiral forms, there seems to be either a lack of positive discrimination between animal and vegetable types or, at

least, a marked analogy between infections caused by the two types.

Our attention has been called to the urgent need of exact methods of determination of organisms, along lines of botanic or zoologic classification, and for purely practical purposes, by an article by Dr. Arthur I. Kendall of Chicago in the *Boston M. & S. Jour.* of Nov. 20, 1913. He reports two cases of mild diarrhoea and fever in twins, one presenting Shiga dysentery bacilli, with beta paratyphoid, yeast and streptococci, the other Flexner bacilli, yeast, streptococci and the Morgan bacillus. He also reports a similar mild case in a child who yielded Shiga and Morgan bacilli.

Not to dwell on the occurrence of dysentery bacilli without typic dysentery, the concurrence of an infection in children so closely associated as twins, with practically identical disease but differing types of intestinal flora, is remarkable—and we use the word **remarkable** without implying exceptional.

Essentially the same problem of germ identification occurs in many widely different cases, and as the author implies, whether reliance is placed on cultural and tinctorial features or biologic reactions. Even so familiar and easily demonstrated a germ as the bacillus tuberculosis is either liable to confusion with innocuous germs, as in smegma and faeces, or it exists in spontaneously acquired habitats in extreme degrees of difference of infectiousness, not to mention that it has been reduced to practically innocuous types by long cultivation.

Excluding gross errors in diagnosis, atypic symptomatology, etc., it must still be admitted that a clinical infection cannot invariably be connected with a definite germ. For example, it is only apparently incorrect to speak of "pneumonia of the lungs" if, by pneumonia, we mean a pneumococcic infection nor, if by the word we refer to morbid anatomy, to speak of pneumococcic pneumonia. The word diphtheria, as used twenty years ago not only excluded mild infections with the diphtheria bacillus but included processes due to other bacteria—a very practical point to remember in estimating the value of antitoxin.

Kendall's article suggests an interesting question as to clinical definition. It is universally conceded that contact with specific germs does not necessarily produce a disease reaction and that the extent of the reaction does not correspond mathematically either with the extent of the lesion nor with the number of germs introduced or developed. Yet professional opinion is singularly inconsistent in the practical application of these principles. For example, it cannot be questioned that diphtheria may vary from a colonization of

bacilli with no appreciable reaction, through mild sore throats, up to the most malignant types. Considerable variations in intensity of reaction are recognized in typhoid but one would have to be very bold to report a case of a week's duration, or to use the word abortive, much less aborted. On the other hand, clinical typhoid is certainly occasionally and, possibly quite frequently, due to para-bacilli and the specific bacillus probably evolved from the colon bacillus, through para-forms, at a date subsequent to the separation of the American race from the parent stock, if it did not develop primarily in some European race.

But, without reference to the evolution of various human infections subsequent to the development of man, to the much later evolution of various local infections at a much later date, and without regard to the fact that a clinical symptom complex may be due to various germs or, conversely, that the same infectious process may occur in varying type, the general principle that a well defined disease is due to a definite germ, probably holds good.

It would, therefore, be a decided advantage if the positive identification of disease germs could be made, independently of clinical manifestations, along lines analogous to those followed in the identification of macroscopic plants and animals. It is unnecessary to apologize for the failure of any branch of medical science to have reached a state of relative perfection. All things considered, we may rather congratulate ourselves that we have advanced so far as we have and this is particularly true of bacteriology (using the term in an inclusive sense), considering its newness. But it may not be out of place to point out that the systematic analysis of a minute, unicellular organism, presents difficulties far greater than analysis applied to complex plants and animals. Last summer, we found and used a bush blue berry that did not correspond exactly to any of the species described by Wood and Gray, and it is not surprising that the bacteria and minute fungi, protozoa, etc., whose economic interest is limited to the harm that they may do, are still described in a fragmentary and rudimentary way.

Weight Fallacies.

In view of the practical importance of the subject, allusion may again be made to the discounts on weight as an index of nutrition. Ordinary indoor clothing and the things carried in the pockets, weigh 10 pounds or more for a man. The omission or difference in thickness of a single garment is appreciable. The loss over-night by insensible perspiration,

urine and respiratory waste and moisture is about 2 pounds. A single evacuation of urine averages half a pound. In the process of "clearing out," the urine, faeces and sweat may account for an apparent loss of 5 pounds or more in a day. On the other hand, a single hearty meal with beverages, may add a pound of solids and 2-4 pounds of liquids in an hour. From the therapeutic standpoint, it should be remembered that gain of weight, even if progressive and considerable is not necessarily advantageous. Every discarded treatment of tuberculosis has had its initial report of gain of weight. As a general rule, the minimum weight in relation to stature and build is the optimum. In other words, leanness nearly to the point of emaciation, is better than moderate obesity.

BOOK REVIEWS

Books mentioned may be inspected at and ordered through this office. So far as possible, books received in any month will be reviewed in the issue of the second month following.

Surgery in War, Alfred J. Hull, F. R. C. S., Preface by Sir Alfred Keogh, K. C. B., M. D., 26 plates, 55 text figures, 390 pages, \$4. P. Blakiston's Son & Co., Philadelphia.

This is a compact work, prepared by 8 collaborators of note, taking general principles and technic for granted and presenting succinctly, the special features of military surgery emphasized by the present war. Partly on account of marked differences in military methods, especially the terrible efficiency of modern missiles, and largely on account of the comparatively recent development of the X-ray, of bacteriologic technic and of a realization by military powers of the necessity of securing as high a degree of efficiency in medicine and surgery as in other branches of military work, the present war has introduced more new experience than any other and has required a decided modification of surgical technic and administration. For these reasons, this book should appeal not only to those anticipating the possibility of military practice or directly interested in military surgery, but the profession generally.

The Ductless Glandular Disease, Wilhelm Falta, Vienna, translated and edited by Milton K. Meyers, M. D., Phila-

delphia. Foreword by Archibald E. Garrod, M. D., F. R. C. P., F. R. S., London. Published by P. Blakiston's Son & Co., Philadelphia. Second edition, 101 illustrations, 673 pages; \$7.

Nearly 70 pages are devoted to a classified bibliography. Among the subjects that might not be thought of as germane to such a work are eunuchism, hermaphroditism, castration, early and late, *adipositas dolorosa*, diabetes and some others. It is scarcely necessary to state that the work is not merely a pathologic or clinical treatise on a group of diseases. The ductless glands are considered in their various analogies and their conditions reduced to general principles so far as possible, but without going to the extreme of trying to make facts or limitations of knowledge fit preconceived theories. Heredity, metabolism, physiologic interrelations, are discussed. Hormones are given very brief attention, as the author does not think that the time is ripe to attempt a practical application of the hormone theory to the diseases under discussion.

Transactions of the American Gastro-Enterological Assn. 1915 (18th annual session at Baltimore, May 10, 1915), 248 pages, illustrated, published by the Assn.

While essentially a collection of papers already published in medical journals after presentation to the Assn., the type has been entirely reset so that the volume is uniform in appearance. Lists of officers and members, constitution and by-laws are included. The papers adhere closely to gastro-enterology but by no means in the medical sense.

Johns Hopkins Hospital Reports, Vol. 17, 1916. 586 pages, illustrated.

This large volume includes only eight articles, all of great pathologic interest. Free Thrombi and Ball Thrombi in the Heart, J. H. Hewitt; Benzol as a leucotoxin, Lawrence Selling; Primary Carcinoma of the Liver, M. C. Winternitz; Statistic Experience Data of the Hospital, F. L. Hoffman; Origin and Development of the Lymphatic System, Florence R. Sabin; Nuclei Tuberculi Laterales and the so-called Ganglion Opticum Basale, E. F. Malone; Venous Thrombosis during Myocardial Insufficiency, F. J. Sladen and M. C. Winternitz; Leukaemia of the Fowl, H. C. Schmeisser.

TOPICS OF PUBLIC INTEREST.

Telephone Merger for Buffalo. The Chamber of Commerce Committee has reported favorably on the proposed merger of the Federal and Bell companies although the matter will be submitted to telephone users for a vote. The following schedule of rates is proposed:

Individual line business:

Local Messages to be sent in one year.	Annual Rate.	Additional Local Messages.
600 or less.....	\$ 39.00	5c each
800.....	48.00	5c “
1,000.....	57.00	4c “
1,200.....	63.00	4c “
1,500.....	72.00	4c “
1,800.....	81.00	4c “
2,100.....	90.00	3c “
2,400.....	97.50	3c “
2,700.....	105.00	3c “
3,000.....	112.50	3c “
3,300.....	120.00	3c “
*3,600.....	126.00	3c “

*Additional local messages contracted for in advance in lots of 300, two cents each. Messages not contracted for in advance, three cents each.

Extension stations, each, \$6.

Auxiliary line and station, \$27.

Residence telephones only:

Individual—Flat, \$48.

Two-party—Flat, \$36.

Four-party—\$24 for 600 local messages; additional messages four cents each.

Note—Residence subscribers also have privilege of contracting for residence service at the message rates shown above for business.

While residences and physicians' offices (presumably) are not directly affected, it is a very narrow view to consider only the direct expense. Incoming messages are quite as important and anything that tends to restrict telephone use is an injury to all. The a la carte method of charging is always expensive to the consumer and tends to prevent a free and liberal use of whatever is thus sold. For telephone service, it has the additional disadvantage of distracting the attention of operators from what should be the sole purpose, prompt and reliable connection. If allowed at all, it should be merely to prevent excessive use and while a five cent

charge may be considered reasonable to the transient user of a telephone, to cover the cost of maintenance of public booths and some attention both by the company and by the proprietor of the place in which the booth is installed, it is far beyond a proper charge for any regular subscriber. Excessive use automatically tends to correct itself by requiring additional wires and instruments to counteract the serious loss incident to delaying or preventing inbound messages. In England, the prevailing charge for a local telephone call by a transient has been a penny. What Buffalo needs—or any other city—is a local application, if necessary official, of the principle of “The Most Favored Nation.” Before submitting to any increase of rates, a thorough investigation should be made of telephone rates throughout the civilized world and an insistence on a minimum of cost and maximum of efficiency. Are our business men so young or so forgetful that they do not realize that the sophistry of the superior economy and efficiency of an unparalleled public service is swept away by the actual facts? Buffalo, except in the early '80's, never had a reasonable rate for telephone service, or a reasonably efficient service, or a service covering anything like the number of persons necessary to convenient communication or even a sufficient support of the company itself. All this has been secured by competition.

The Gasoline Problem. A letter from an advertising agency to the publisher of a medical journal reads thus: “We are enclosing herewith reprint of an editorial which appeared in the Chicago Herald, April 13. This editorial, we believe, is of great interest to your readers, and we will appreciate your courtesy in having same republished in an early issue of your paper. Such action will also be greatly appreciated by the Standard Oil Co. of——, whose advertising is appearing or shortly will appear in your publication.”

Attention, The S. P. C. S. !

The federal trade commission has sent to Congress a preliminary report on the rise in the price of gasoline. It draws no conclusions but presents masses of statistical information. Among the items noted in the press summary are:

Production of crude oil remained virtually stationary; gasoline contents of crude oil decreased; exports of gasoline increased from 188,000,000 gallons in 1913 to 238,500,000 gallons in 1914 and 284,500,000 gallons in 1915; for its 62 per cent of the gasoline produced the Standard Oil Company charged about 1 cent a gallon less than the “independents” charged for their 38 per cent.

The last item ought to move the Society for the Preven-

tion of Cruelty to Statesmen to do something. Consider the hard lot of the member of Congress with a large constituency of automobile owners. Confronted with angry complaints about the "high price of gas" he is deprived of his old familiar explanation.

He cannot dismiss the complaints with the classic vituperation of the "trust"—the "octopus"—for here is the federal trade commission with its cold-blooded price tables. Truly the way of the statesman who deals in oratory meant only "for Buncombe County" grows harder every day.

It will be noted that the figures contradict the report to congress, mentioned in our May issue, which stated that the exports of gasoline had declined from 1914 to 1915, although the differences are not large. According to miles run and consumption per mile, automobiles vary greatly in their use of gasoline and it should be remembered that this use of gasoline is only a part of the total. It would be interesting to have statistics on this point. As an approximate estimate, including heavy commercial vehicles, each motor vehicle uses 1000 gallons a year. The exported gasoline, therefore, would provide for 284,500 automobiles or about 1/8 of the total. The increase since 1913 would provide for about 100,000 or somewhat less than 1/20 of the total. The 1914 figures as well as total yield of crude oil and potential content of gasoline were certainly known to oil men in the summer of 1915, when gasoline was having its maximum use for all purposes and was being sold at 11 cents. The increased exportation for 1915, as compared with 1914—granting that the government statement of a diminished exportation was wrong—corresponded to the consumption of 46,000 automobiles, about 1/50 of the total to be expected for 1916, and to a far less proportion of the total use of gasoline for all purposes. If the production of crude oil remained stationary, that was the fault of the producers. Expert authority holds that there is enough in the ground for 27 years to come, not to mention possible new discoveries and the theory of certain economic geologists that natural gas, and oil are not merely the stationary remains of ancient organic life but that they are being formed by purely inorganic processes. While it must be conceded that the recent production has been low in volatile contents, the recently announced improved method of "cracking," which has been recognized as practicable by the Standard Oil Cos. themselves (note the plural) more than compensates for this. But, concede that oil production remains stationary and that improved processes of cracking merely compensate for the reduction in spontaneous gasoline in crude oil, also that exportation is the determining factor. How does an increase in exportation corresponding to about 2% of the total use of

gasoline for automobiles alone, account for a rise in price during the period of minimum use, amounting to about 150%. The only answer that we can imagine is to be found in the published reports of large dividends and great increase in value of stocks.

We have already called attention to the fact that independent oil companies cannot be relied upon to maintain low prices. We have even spoken of them as assistant standard oil. Still, the admission that 62% of the total production of oil is in the hands of the Standard Cos. is significant.

We also heartily agree with the contention that a congressman cannot "dismiss the complaints with the classic vituperation of the 'trust' ". No problem is solved by vituperation but by a calm and sensible consideration of a desired end and of efficient means to reach it. For instance, as a nation, we must get rid of the old idea that all we want is money, expressed by the general policy of a protective tariff on imports and a constitutional objection to restriction or, at least, of taxation, of exports. Various food products are vastly more important than gasoline and, under obvious conditions, it may be more important to retain them than to allow their sale outside the country. Most countries prohibit or at least restrict the exportation of works of art and antiquities. Let it be clearly understood that we do not advocate free trade nor restriction of commerce, nor taurocephalic reduction of prices but all the details concerned must be sensibly considered with a view to attaining the best conditions for the majority of the population, by a reasonably elastic system of control involving import and export taxes or restrictions and any other means necessary.

The Annual Meeting of the Buffalo Assn. for the Relief and Control of Tuberculosis was held April 28. Moving pictures of the work at the J. N. Adam Memorial Hospital at Perrysburg were shown. The society now owns over 1,500 feet of educational films. Irving S. Underhill is President and Paul E. Batzell, Secretary.

The National Society of Keep Wells organized by Mrs. Arthur Mac Donald, is progressing in its good work of securing popular conception of hygiene. It is urged that local chapters be formed and suggested that physicians co-operate by giving popular talks. One of the slogans of the society is that a knowledge of the geography of the body is more important than that of the geography of the world.

The Calydor Sanitarium has been opened at Gravenhurst, Ont., under the management of Dr. C. D. Parfitt. Dr. D. W.

Crombie who has been associated with Dr. Parfitt for three years in sanitarium work, will be resident physician. The sanitarium occupies a new building on Lake Muskoka and is equipped with a bacteriologic and X-ray laboratory. Miss Robina L. Stewart will superintend the nursing, hygiene and dietetics.

U. S. Civil Service Examinations will be held June 6 to fill the position of Assistant Epidemiologist (male) at \$2,000-\$2,500; and June 7, for Medical Interns in the Government Hospital for the Insane at \$900 and maintenance. We regret that these notices are usually sent out too near the time for due publicity in monthly medical journals.

The Plattsburg Military Training Camp, is located on Lake Champlain and covers several hundred acres. Last year 1800 business and professional men attended it, 4 from Buffalo. This year the total enrolment on Mech. 31 was 3,088 and the enrolment from Buffalo up to April 20, was 154. It is desired that the total enrolment for this summer be 10,000, of whom 500 should come from western N. Y. Enrolment does not necessitate attendance if subsequently found to be impracticable. The training camps are organized into senior and junior divisions, the former including men from 21 to 45, of high school education or its equivalent, the idea being to limit the camp to men of efficiency and initiative—from which we infer that the idea is to have an available source of officers in case of need. The junior division is for undergraduates or those just graduated from high schools and colleges or graduates still under 21. Senior encampments will be of four weeks each, June 5-July 2, July 12-Aug. 8, Aug. 10-Sept. 6, Sept. 6-Oct. 5. The junior encampment will be July 5-Aug. 8. Expenses beside railroad fare (and strictly personal expenses) will be \$30 for seniors and \$22.50 for juniors, and a uniform costing about \$10. For further information apply to Geo. H. Field, Executive Sec., Military Training Camps Assn., 542 Marine National Bank Bldg., Buffalo. "If you can't go yourself, send someone else."

The Wheel Chair Guild of Buffalo has acquired as a home for incurables, a large stone house at the corner of Delaware and Kenmore Aves., in Kenmore, just across the city line.

Sun's Rays Focussed on Skin as Substitute for Vision. L. Zehnder of Berlin, suggests that, as a partial guide for those deprived of sight, the number of blind soldiers being appalling, a lens, with screens, be used to focus light and heat rays on the skin of the chest. He believes that not only would

this be of service in orientation but that ideas of the shape and nature sources of reflected light or heat might ultimately be acquired and that, by some arbitrary system, light and heat signals could be used to spell out words.

Over a Hundred Leroy School Children Operated on for Enlarged Tonsils and Adenoids. Health Officer Graney has secured the services of a Buffalo specialist at a rate of \$5 per capita, at least ten pupils to be assembled in the hospital for operation at a time.

German Statistics of Wounds. In Aug. 1914, 84.8% recovered entirely, 12.2% remained unfit for military service and 3% died. In Aug. 1915, 88.1% were returned to active service and 2.7% died. This shows a wonderfully high efficiency of military surgery. Similar statistics for other countries engaged in the war have also been remarkably good but not so good as these, it is claimed. It is obvious that by no means all military fatalities are instantaneous and we have not been able to ascertain the exact definition of "wounded" as the basis of such statistics as these.

The total German losses to May 1, 1915, are stated at 705,877 killed; 1,781,310 wounded; 334,892 prisoners. (See page 535 May issue.)

Little Damage to The Abbott Laboratories. A small fire with explosion of gases occurred April 21st on the top floor of one of the buildings of The Abbott Laboratories. Newspaper reports of the extent and character of this accident were grossly exaggerated. The damage was very small, consisting mainly of broken window panes and cracking of temporary partitions. The plant and machinery were injured but slightly, and the entire force went to work the next morning as usual. The Abbott Laboratories have issued a statement positively denying the newspaper reports that this firm is or has been engaged in the manufacture of ammunition or explosives.

Popular Medical Education Through the Lay Press. As compared with even 25 years ago, the space devoted by the lay press to medical and hygienic matters is very large. Even notes of advances in medical science are usually given prominent positions by most newspapers and are reported quite accurately. Indeed, inaccuracy and exaggeration has seemed to us to occur rather in syndicate matter sent out by quasi-medical organizations for lay instruction. From the standpoint of the medical profession, most of the matter of this sort is trite and not worth repeating but the constant reitera-

tion of hygienic and sanitary dicta must exert a considerable influence on the general health. We note in a syndicate article by Dr. Frank Crane, under the title "If I were king," the following suggestions: Recognize alcohol as a habit-forming-drug and regulate it exactly as heroine and opium . . . to be procured only by physician's prescription. Abolish the Fahrenheit thermometer, the present calendar, substituting one of 13 months, all systems of weights, measures and money not decimal. Abolish criminal courts substituting commissions of psychologists to determine what should be done, not to satisfy public resentment but to cure the defect.

Do You Know That

1. Walking is the best exercise—and the cheapest?
2. The United States Public Health Service administers typhoid vaccine gratis to Federal employees?
3. A little cough is frequently the warning signal of tuberculosis?
4. Bad teeth and bad tonsils may be the cause of rheumatism?
5. Unpasteurized milk frequently spreads disease?
6. The air-tight dwelling leads but to the grave?
7. Moderation in all things prolongs life?
8. The careless spitter is a public danger?—United States Public Health Service.

1. Just to be contrary, we would reply that the bicycle is better yet because it enables the city resident to get into the country.

2. That we did not know this but that we did know that almost anyone can get free typhoid vaccine somewhere and that we must thresh out the issue of just what forms of medical attendance should be furnished free, as a matter of paternalism, without regard to proper charity to the poor, not in regard to this point alone, but as a general principle in medical ethics and economics.

3. That a little cough is much more often due to something else than tuberculosis and that, in tuberculosis, it occurs a little too late to be considered a warning. It is rather a reminder of neglect.

4. Not that they are strictly causes, though we have occasionally noted cases of rheumatism in which bad teeth and bad tonsils were mobilization points in attacks on the joints and other structures to which the term rheumatism is applicable. We have recently seen a case which had been termed rheumatism and which was diagnosed and proved to be infectious polyarthrititis, in which the tonsils and teeth were in exceptionally good condition.

5. Yes but we do not believe that pasteurization will

adequately protect against the majority of specific infections which may be carried by milk and we are not yet ready to abandon the old idea of clean, raw milk, protected against gross contamination, and used fresh, before ordinary air bacteria multiply to any dangerous degree.

6. This is our personal opinion (not original) but we know some octogenarians and nonogenarians whose houses are stifling.

7. We used to, but we are getting around to the belief that, excluding practices dangerous on a small scale and actual fatigue and excess, the man who stays till the last dog is hung, prolongs his youth and huskiness.

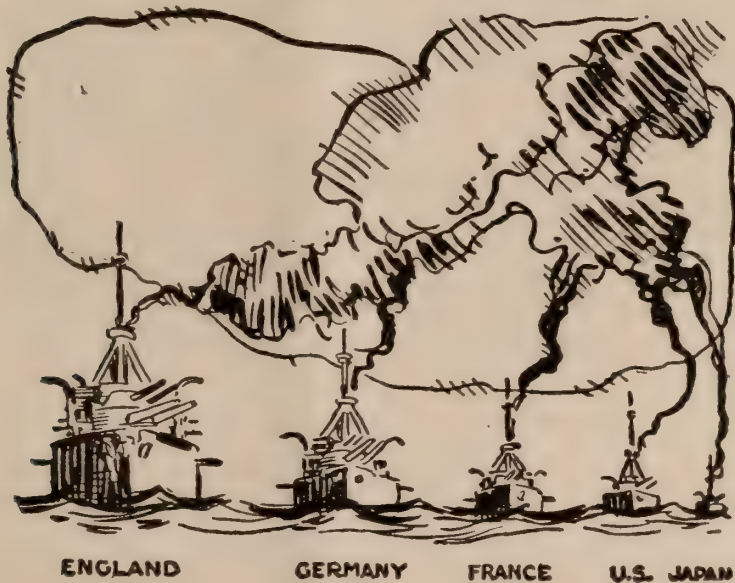
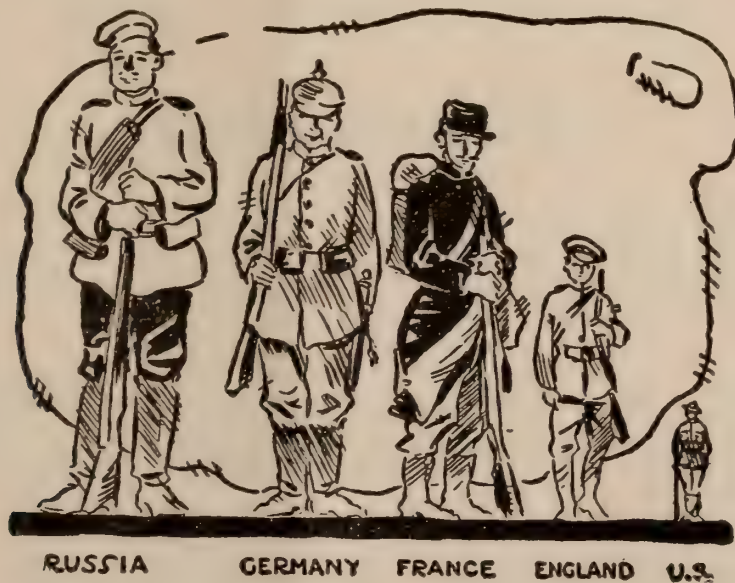
8. Yes, if there is anything dangerous in his sputum.

Army Surgeons. The House has adopted an amendment providing for seven medical officers per 1000 troops. Just how large our regular army will be within the next year or two, it is difficult to state but it does not seem that popular sentiment will consent to anything like a permanent solution of the problem on a basis of less than 200,000. This would mean that about 1400 medical officers would be required; an excess of nearly 1000 beyond the present active list. The annual graduation of physicians has fallen to about 3000. According to past experience, about 10% of applicants or would-be applicants for commission, are accepted. The knowledge that the requirements are difficult prevents application in many instances, so that actual statistics of examining boards may show a higher passing proportion. Anything approaching accurate estimates are, of course, impossible but we are inclined to believe that the thousand vacancies in the medical corps which will soon be made, will exhaust the material available, considering the age and exceptional ability demanded by the staff, and the personal predilections of the possible supply. With similar increase in the navy and the numerous other government services, the economic excess of physicians should be remedied to a large degree. It is also worth while considering that a further increase in the proportion of medical work done under the various branches of the government, will occur.

The University of Pennsylvania by vote of the Trustees, has decided to limit the number of students in the first and the second years of the medical course to 100. This will, with fluctuations due to outside influences, reduce the graduating classes to about 80. In 1915, the graduates numbered 57 but those of Jefferson and the Medico-Chirurgical College which are to be merged with the University of Pennsylvania, were, respectively 145 and 82, a total of 284. While,

for economic reasons, we have always strongly favored a reduction in the medical profession, there are certain principles in this country which are opposed to a purely arbitrary limitation of choice of life work and it occurs to us that strictly legal obstacles may exist and that these may possibly apply to raising of requirements when the latter policy is thus formally acknowledged to rest upon a numeric estimate.

The National Security League of 31 Pine St., N. Y., kindly furnish the accompanying pictorial argument for preparedness.



The College of Physicians and Surgeons, Medical Dept. of Columbia University, has opened its doors to women.

The New York State Narcotic Law (Boylan) had various amendments proposed during the last session of the legislature. These would have still further embarrassed physicians

and pharmacists in attempting to follow the spirit of such legislation and we are glad to learn that they have been defeated.

Twilight Sleep was shown to the public by moving pictures at the Teck Theatre of Buffalo, last month. Men and women were admitted at different performances. The editor was not able to attend the show but doubtless many other physicians did. As many ethical problems have arisen regarding twilight sleep and as some of these are especially connected with this method of demonstration, an expression of opinion is desired from those who witnessed the performance.

SOCIETY MEETINGS

Brief reports and announcements of meetings of societies of Western New York, and those of general scope, are requested from Secretaries. Copy should be on hand the fifteenth of the month. Full transactions will be published at cost of composition.

DOCTOR: Is your Society properly represented here? If not, please bring our standing announcement to the attention of the members.

The Gross Medical Club held their stated meeting at the Hotel Touraine, Thursday, April 27th, as the guests of Dr. and Mrs. A. G. Bennett, President W. Warren Britt presided.

Dr. A. G. Wilcox, of Tonawanda, read an interesting paper "The Value of the X-ray to the General Practitioner." The essayist spoke from a standpoint of the X-ray in fractures, showing many pictures of unrecognized fractures from clinical evidence, but which were easily and quickly shown by aid of the X-ray plates. He made the unqualified statement that in all cases of injury involving joints or bone, an X-ray picture should be taken as it often saved deformity and trouble for the physician afterward. The paper was discussed quite generally by all present, especially President Britt, who advocated the use of Sodium Silicate bandages instead of plaster of Paris. He said it was easier to get a picture with this method after dressing had been applied, thus it can be shown whether the fracture is in the right position or not. Dr. Britt said the crinoline can be soaked in Sodium Silicate as bought from the drug store, it hardens quite quickly and in every way is as firm as plaster of Paris.

The following cases were reported:

Dr. George F. Cott, man, aged 70, operated upon some time ago for removal of nodes on each side of the neck. Later was

seen in consultation on account of slight pain when swallowing. Examination showed an ulcer near the larynx, about one inch deep, with smooth cartilaginous-like border. The diagnosis of this case he reported as very confusing, having, never seen nor heard of a similar condition, it is either syphilis, tuberculosis or cancer and as different tests are now being made, discussion will be reserved until reports are at hand.

Dr. Baker, Williamsville, a woman, age 45, for three or four years at intervals of three to four months, has suffered severe attacks of pain in the right lower quadrant of the abdomen. She had consulted three doctors who diagnosed appendicitis, who advised operation. At the last attack she consulted the reporter, who took the phosphatic index finding it very low. Compound Phosphorus Mixture (Dowd) was ordered. In three days she was free of pain and has had no recurrence in a year. This was evidently an ovarian neuralgia. He said he could report several cases in which or after which absolute failure in his and other hands by other methods he had used the Phosphatometer and prescribed as to the readings with the most happy results in practically every case.

Dr. McKinney, a case of peri-rectal abscess, operated on six times, always recurred. Dr. McKinney said any condition of this kind meant but one thing, fistula, and the internal opening should be found. The following method, not described in text-books was described, for finding the internal opening of a fistula. If abscess is closed, puncture and let out pus through canula. Wash out cavity thoroughly, then distend with a solution of Methyline blue. With a good light, if the solution does not appear in the rectum and can be seen oozing through the opening, a blue spot will be seen, where the tissue is thin, and is the internal opening.

Dr. J. Henry Dowd, reported a case of priapism of long standing. This is not a disease per se, but a symptom. It is of two varieties, true and false: the true generally accompanied some inflammatory condition of the spinal cord and is very bothersome both day and night. The false, of which the reported case is an example is generally due to some local condition in or around the neck of the bladder or Neuroses. There was no history of venereal disease, attempted examination of the prostate almost threw the patient into a spasm, but it was normal in appearance. Examination of the urine revealed no pathological condition of the urinary tract. The phosphatic index registered 90% minus. Fluid extract of valerian, Comp. Phos. Tonic (Dowd) of each two oz. in glycerine for six ounces, a teaspoonful three times a day half an hour after food was ordered.

In ten days, this patient reported great relief, in fact, the priopism had practically disappeared.

This condition might be considered a hyperaesthesia of the prostate due to nerve-cell starvation.

Mr. John F. MacHowie entertained the guests during dinner with recitations.

The Alumni Association of the Medical Dept., University of Buffalo, held its 41st annual meeting, May 30-June 2. This date is too late for a full preliminary announcement and too early for a description in retrospect in this issue. Full transactions will be published in the July or Aug. issue, according to the date received. It is obvious that the Committee in charge have a great many duties to attend to, before, during and for some time after the meeting and that they may not be able to prepare the matter for publication in the July issue.

The Rochester Academy of Medicine held a regular meeting with Section I, May 10. Dr. Chas. E. Darrow gave a paper on Medical Treatment of Gastric and Duodenal Ulcers; Dr. Edward G. Nugent on Causes and Treatment of Colitis.

The Buffalo Clinical Club held the last meeting of the season, May 1. Dr. Phillips of Corfu, formerly of the staff of the Ernest Wende Hospital, read a paper on Infectious Diseases; Dr. John H. Pryor read a paper and presented lantern slides of X-ray plates illustrating Immobility of the Diaphragm Following Pleural Effusion. At the last previous meeting, in April, Dr. John M. Lee of Rochester read a paper on radium and exhibited tubes of the element.

The Buffalo Academy of Medicine has held the following meetings since our previous report: April 26, Section of Pathology, Contraction of the Individual Muscle Fibre, Dr. F. H. Pratt; Immobility of the Diaphragm after Pleural Effusion and Empyema, Dr. John H. Pryor. X-ray pictures by Drs. Leonard Reu and Edward C. Koenig, were shown by lantern.

May 3, Section of Surgery, Rollier Treatment of Bone and Joint Tuberculosis, Drs. Hyde and Lo Grasso of the J. N. Adam Memorial Hospital. Lantern slides and patients were shown.

May 10, Section of Medicine, Acute Abdominal Conditions in Children Demanding Immediate Operation. Dr. A. W. Hengerer.

A joint meeting of the **Binghamton and Elmira Academies of Medicine** was held at the Binghamton State Hospital, May 15. Program:

1. The Reception, Examination and Care of New Admissions, Dr. C. G. Wagner, Superintendent.
2. The Cold Wet Pack, Dr. T. I. Townsend.
3. Brief Resume of What Has Been Done and What is to be Done for the Prevention of Insanity, Drs. Edward Gillespie and R. M. Chapman.
4. Cerebral Arteriosclerosis—Its Clinical and Pathological Aspects—Clinical and Lantern Slide Demonstration, Drs. R. R. Williams and W. J. Tiffany.

Lunch was served at the Hospital.

PERSONAL.

Announcement of removal, travel, and other matters of interest are requested. Please report errors in the listing of any physician in the State and other directories, that we may co-operate with the State Society in securing a correct list.

Dr. Harry R. Trick of Buffalo announces his removal to 522 W. Ferry Street, and his attention to General Surgery.

Dr. Herbert A. Smith of Buffalo announces his removal to 566 Delaware Avenue.

Dr. Nelson W. Strohm of Buffalo announces his removal to 566 Delaware Avenue.

Dr. A. H. Aaron announces the opening of offices at Suite 5, 494 Franklin Street, Buffalo, and his limitation to Diseases of the Digestive Organs.

Dr. Lee Masten Francis of Buffalo, announces the removal of his office to 636 Delaware Avenue.

Dr. Arthur C. Eisbein has been appointed Diagnostician of the Buffalo Health Dept. at a salary of \$2,000.

Dr. Charles S. Butler of Buffalo, announces his retirement from dental practice. He has been appointed Field Secretary in charge of the fund for superannuated and needy clergymen of the Presbyterian Church.

Dr. Ernest L. Vogenau and Dr. Julius Y. Cohen had the misfortune of knocking down pedestrians with their auto-

mobiles, recently, the latter accident resulting fatally. No blame is attached to the drivers.

Dr. Bendis has been appointed interne at the J. N. Adam Memorial Hospital, Perrysburg, at a salary of \$600 and maintenance.

Dr. W. S. Renner of Buffalo visited White Sulphur Springs, W. Va., early in May.

Dr. Prescott Le Breton attended the meeting of the American Orthopaedic Assn. at Washington, in May.

Dr. G. H. Peddle has been elected treasurer of the Perry Rifle Club.

Dr. Harry C. Dumville has resigned as bacteriologist of Niagara Falls, after a service of four years. Miss Hazel Robinson will succeed him.

Dr. John G. Stowe of Buffalo announces the removal of his office to 566 Delaware Avenue.

Dr. F. A. Mendlein has been elected Vice-President of the North Jefferson Street (Buffalo) Business Men's Assn.

The following Buffalo physicians have passed the civil service examination for the position of city physician: Herbert H. Bauckus, Peter J. Barone, Charles Leone, Francis H. Lennan, Leon S. Kurek, Mansfield G. Levy, Wm. E. Dieffenbach, John H. Wild, Wilfred H. Baynes. The following have been nominated for appointment, by the mayor: John H. Wild, Charles Leone, Leon S. Kurek, Herbert H. Bauckus.

OUR CONTEMPORARIES

The Illinois Medical Journal, May, comments editorially on the proposed national licensing board. It agrees with our contention that such a board cannot be established without a constitutional amendment, which would take this power from the states and with it, either by general wording or by precedent, other powers. It discusses a proposition to establish a voluntary licensing board which we confess, we do not comprehend. We do not see how a national licensing board can be in any way unofficial. Of course, any state board could voluntarily submit to the findings of such a board but so they can extend their reciprocity. The Illinois

Medical Journal concedes the broad advantages of a national license and believes that some way can be found to solve the problem by co-operation of states. With all this, we heartily agree, though we admit a personal belief which we do not consider proper as a journalistic policy, that it is high time that this country had a single government, except for purely local matters for small areas such as counties and cities. This belief may not be so nefarious as it seems at first thought. At any rate, many of the framers of the Constitution regarded the maintenance of the states as a temporary expedient.

OBITUARY

Readers are requested to report promptly the death of all physicians in Western New York, or former residents of this region, or graduates of any medical school in Western New York, and to notify the families of the deceased of our desire to publish adequate Obituary notices.

Dr. J. William White, University of Pennsylvania, 1871, died at his home in Philadelphia, after a long illness, April 24, aged 65, having been born in Philadelphia, Nov. 2, 1850. Immediately after his graduation, he accompanied Prof. Louis Agassiz on the Hessler expedition to the West Indies and South America. He early specialized in surgery and was well known as an author, teacher and surgeon, especially in genito-urinary conditions though not limiting his attention to the latter. He became a member of the faculty of the University of Pennsylvania in 1881, soon afterward becoming Prof. of Genito-urinary Surgery and Professor of Clinical Surgery, in which capacity the editor enjoyed his teaching in 1888-9. In 1900, he was appointed John Rhea Barton Prof. of Surgery and, at the time of his death, was Emeritus Prof. of Surgery and a member of the board of trustees. He was a man of culture and of elegance in manner and dress, balanced by a most kindly and sympathetic nature and by studious habits and unusual practical skill. His brain was left to the Wistar Institute of Anatomy. His body was cremated, without religious services, in consistent respect to his ethical conceptions.

Dr. Thomas J. Thurber, N. Y. Homoeopathic 1883, died at his home in Rochester, Mch. 25, aged 72.

Dr. Thomas M. Johnson, Buffalo 1861, for most of his life a physician of Buffalo, though at one time interested in a pharmacy, died at Bath, N. Y., May 6, in his 88th year. For

many years, he took a prominent part in the Medical Society of the County of Erie. Only 14 members of earlier classes of the University of Buffalo are listed in the Alumni Catalogue as known to be living. Six members of Dr. Johnson's class survive him.

Dr. Oscar J. Stafford, Buffalo 1858, died suddenly April 12, while attending a patient near his home in Port Chester, N. Y., aged 58. He was physician to the United Hospital of Port Chester.

Dr. John D. Zwetsch, Cleveland Homoeopathic 1882, was killed in an automobile accident near Gowanda, where he had practiced for many years, May 6.

Dr. Samuel Max Brickner, P. & S. 1891, died at Saranac Lake, May 5. He was born in Rochester in 1867, graduated at the University of Rochester 1888, practiced gynaecology in New York City until about two years ago when he was compelled to seek a better climate on account of his health. He was Associate Editor of the N. Y. Medical Journal and had recently established the Medical Pickwick. A more complete obituary will be published later.

ABSTRACTS.

Have you ever felt that this department of the **BUFFALO MEDICAL JOURNAL** was lacking in abstracts of your specialty, or that such as were published lacked the expert judgement which you yourself could have exercised in selection and preparation? If not, you are more charitable than the editor has been to himself. If so, will you assist in abstracting from a few journals, and thus make this department more representative and more valuable? Incidentally, there are few forms of study more helpful to the worker than this.

Hodgkin's Disease of Intestine. L. M. Warfield and H. T. Kristjanson of Milwaukee, Johns Hopkins Hosp. Bull. Jan., report a case in a Bulgarian man aged 27, a laborer. Previous history negative, gradually increasing pain in stomach, with vomiting and diarrhoea, for about nine months. Mucous rales and later dullness at the bases of the lungs suggested tuberculosis but no evidence of it was found. Necropsy showed that death was due to acute peritonitis with perforation of jejunum. Diffuse and nodular thickening of intestine, enlarged mesenteric glands, splenic tumor (280 grams), slight enlargement of liver (1600). The authors accept Bunt-

ing & Yates's demonstration of the specific bacillus Hodgkini and found some bodies resembling bacilli, Gram-positive, but do not consider them positively demonstrated in their case. The microscopic appearances of the glands was typical. References are given to several other intestinal and gastro-intestinal cases.

Gaucher's Disease. J. H. M. Knox, H. Roswell Wahl and H. C. Schmeisser, Johns Hopkins Hosp. Bull. Jan., give a table of the 16 cases already known. Age limits 14 months to 44 years; sex 3 male: 13 female; splenomegaly up to 45x25x13 c.m., weight 8000 grams, averaging $1\frac{1}{5}$ - $1\frac{1}{6}$ of body weight instead of the normal 1:400; blood as in secondary anaemia, leukopenia down to 500 per c.m.m. In 12 cases, histories suggesting the same disease in brothers or sisters were noted. Splenectomy was done in 9 cases, 3 dying shortly after, the others living at least for a few weeks, up to 16 months and apparently nothing further being reported as to survival. Syphilis and tuberculosis seem to have nothing to do with the development of the disease though one instance of the former and 3 of the latter are reported in the 16 cases. The characteristic lesion, on which the definition depends, is the presence of peculiar pale round or oval cells with an average diameter of 20-40 microns, especially in the spleen, also in the liver, lymph nodes, bone marrow and in the authors' cases quite generally distributed. The authors add two cases, sisters, aged respectively 9 and 5 months, the 11th and 12th children, 6 other children, 20-4 years old (plus 2 years to date of second case) well, four dead, one at 8th month of unknown cause the rest of various causes, not suggesting Gaucher's disease. Both cases died. The pathologic findings are reported in detail.

Tetanus. Sir David Bruce, Lancet, No. 4808, 1915, Vol. 189, gives an analysis of 231 military cases treated in home hospitals. Incubation varied from 3 to 157 days. 37 received a prophylactic dose of serum, 19 dying—51.3%. 215 cases were given serum immediately after the development of symptoms, the mortality varying from 42.8% for a group treated intraspinally to 85.7% for a group treated intravenously. (Note: The groups evidently overlap so that it is impossible to present full statistics).

Delayed Tetanus. Brochet, Acad. de Med., Nov. 23, 1915, reports a case of a soldier who had been wounded by a shell in the right scapulo-vertebral space superficially, there being also a sinus of the right calf and of the right side of the abdomen, 4 fingers' breadths above the iliac crest. The case

was attended to promptly and there was no possibility of enclosure of tetanus bacilli in the solutions used for the wounds. In addition, he had received 10 C.C. of antitetanic serum 2 hours after being wounded. Nevertheless, tetanus developed on the 97th day. R. Leriche, also reports two similar fatal cases.

Antiparatyphoid Vaccination by the Alimentary Tract. J. Lignieres, Acad. of Med. of Paris, Nov. 2, 1915, described paratyphoid as an epizootic of pigs in 1900, under the name salmonella. He employed with success, virulent bacilli, killed by heat and administered in dry electuaries.

The Nature of the Neurotic. Philip Kilroy of Springfield, in a letter to the Boston M. & S. Jour., Oct. 14, compares Adler's description of the neurotic (Adler being in his estimation a filth-free disciple of Freud) to the description of clay in a proprietary compound as "levigated anhydrous argillaceous mineral matter." He states that "non-rainbow chasers" recognize that "the neurotic is just a plain damn fool, of varying degree, sometimes permanently, sometimes temporarily, unable to withstand or control the multiple stimuli of life, be they endogenous or exogenous."

Diagnostic Value of Gonococcus Vaccine. Asch & Adler, Muench. Med. Woch., Jan. 18, advocate the use of large numbers of killed germs, 50-100 million, hypodermatically, even repeating with 125 milion once or twice if gonorrhoea is suspected in spite of an apparently negative result. Two or three days after injection, a urethral discharge occurs, containing degenerate, mainly extracellular cocci, such as are seen in cultures. The injections are repeated two or three days after the disappearance of these.

The Criminal Boy. Wm. O. Krohn, Chicago, Ill., Med. Jour., May. 112 cases were investigated, mostly inmates of the Cook Co. Jail. 9.5% had defective vision, mostly minor astigmatism, average for Illinois school children 11%. 18% had defective hearing mostly from adenoids, sequelae of scarlatina and catarrhal disease, average for school children 19%. The criminal boys showed a notable increase in perversions of taste but mostly on account of the local effects of cigarette smoking. Touch was somewhat blunter than among average children. Visual was better than auditory memory, as for most persons and concrete examples were better solved than abstract. For example, the boys could add well enough in playing rhum but had difficulty with identical numbers in the abstract. Judgment, imagination and reason-

ing showed shrewdness and practical intelligence but a failure to comprehend fine distinctions, especially of a moral nature. The author very sensibly protests against the tendency to excuse delinquency solely on account of age and thinks that lenity for first detected crimes tends to confirm the criminal in his practices.

Prognosis by Nuclear Units. H. H. Seyl, Chicago, Ill. Med. Jour., May. Arneth showed long ago that the polymorphonuclear leucocytes may be classified by the number of nuclear lobes in each cell, which vary from 1 to 5. Normal blood shows 5, 35, 41, 17, 2% respectively. It has been the custom to estimate according to the percentage both ways from the dividing average by adding the first two columns and half of the total of the third column, counting the normal as 60% of the total number of polymorphous cells. Seyl holds that the proper way is to total the number of nuclear lobes. Normally, we have 5x1, 35x2, 41x3, 17x4, 2x5, a total of 276. Arrested cases of tuberculosis by this method gives a grand total of nuclear units of 215-250; incipient cases 195-215; moderately advanced cases 180-195; advanced cases 180 and downward. He cites a case of pernicious anaemia treated by splenectomy and transfusion (3 transfusions) in which the total increased from 113 to 151 two months later, with clinical improvement. A second case, same treatment, showed a decline 108-102 and ended fatally. A fatal case of lymphatic leukaemia gave a total of 100. Various other diverse cases apparently show that unless the index rises considerably above 100, death occurs.

Cesarean Section. In 1879, Felkin, an African traveler, witnessed a cesarean section performed by the natives in the heart of Uganda. The woman was held in a reclining posture by two men. At her side was a gourd of banana wine, and she was half drunk. The operator stood at her left. First he washed his hands in banana wine, then he washed the belly with the same—active antiseptic measures. With a short curved knife he made one incision thru the belly, right into the uterus and quickly delivered the child alive, an assistant holding the uterine incision open by hooking his fingers into it. By uterine massage, the placenta was expressed and hemorrhage controlled. Several bleeding points were cauterized with a hot iron. The cervix was dilated from above with the fingers. The assistants then turned the patient on her side to allow the blood to drain out of the peritoneal cavity, the intestines being retained by a square of plaited twigs, after which the belly was sewed up with pins and figure-of-eight sutures. The pins were made from

bamboo stick, the sutures from reed fibres. The wound was covered with a paste made of aromatic herbs. The patient recovered in eleven days, having run a mild febrile course. Without doubt, this operation must have been performed for many centuries for the technique to be so perfectly developed. —DeLee, Illinois Medical Journal.

Pathologic Action of Arsenicals on the Adrenals. Brown & Pearce, Jour. of Experimental Med., Nov. 1915 concluded from studies on guinea pigs that congestion, haemorrhage, disturbance of lipoid contents, cellular degenerations and necroses and reduction in chromaffin occur, varying in degree according to the chemic constitution of the arsenical, as well as dose. Note: The therapeutic use of any foreign, toxic substance, even if generally advocated and producing immediately favorable results, should be regarded with conservatism. The ultimate results in various structures may be very serious but, on account of the insidiousness of the effect, difficult of recognition. The maximum life of man, aside from rare exceptions, is only four times the length of the growing period. Many lower animals have a life of nearly 10 times this period. It is not impossible that the high mortality of middle aged and moderately old persons is due in large measure to early therapeutic tinkering.

The Pineal Gland is considered an inert, residual structure, by W. E. Dandy (Southern Med. Jour., Meh.) from experiments at Johns Hopkins. Puppies from which it was removed developed normally.

Meningococcic Carriers. Sidney T. Champtaloup and John T. Bowie, Bacteriologic Dept., Otago Univ., New Zealand, N. Z. Med. Jour., Feb., present the following tables showing positive results with cultures from the naso-pharynx:

OUR TABLE.

BRUNS & HOHN'S TABLE.

			Carriers.				Carriers.
From	0- 1	week	1 case	Up to	8 days		28
"	1- 2	weeks	2 cases	"	2 weeks		18
"	2- 3	"	3 "	"	3 "		13
"	3- 4	"	1 case	"	4 "		10
"	4- 5	"	2 cases	"	5 "		4
"	5- 6	"	2 "	"	6 "		3
"	6- 7	"	4 "	"	7 "		3
"	7- 8	"	0 "	"	8 "		1
"	8- 9	"	9 "	"	11 "		1
"	9-10	"	3 "				
			27				81

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ORIGINAL ARTICLES

The right is reserved to decline papers not dealing with practical medical and surgical subjects, and such as might offend or fail to interest readers. Contributors are solely responsible for opinions, methods of expression and revision of proof.

Intestinal Paresis With Special Reference to Pituitrin in Its Treatment.*

By A. J. COLTON, M. D.,

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and St. Marys Hospital.

Intestinal paresis is known by various names, such as intestinal atony, intestinal motor neurosis, intestinal insufficiency, functional debility of the intestinal muscular system, stasis, etc. All of these terms are used to express a condition of the intestinal tract in which there is either a diminution or loss of intestinal peristalsis; or, in other words, it is the partial or complete loss of that force which produces the onward movement of the intestinal contents.

This condition may be partial or complete, chronic or acute, organic or functional.

Without the peristaltic function we would be most miserable, short lived and all eventually die as surely as if we suffered from an organic obstruction of the bowels.

Intestinal paralysis I shall consider the absolute loss of muscular power of the intestines and usually due to some disturbance of the cerebrospinal or sympathetic nervous system; organic in nature and in contradistinction to the former condition, viz:—paresis, atony, insufficiency, stasis, etc., which I shall consider functional whatever that may mean. The above enumerated conditions, intestinal paralysis, and any condition producing a mechanical obstruction to the

*Read before the Aesculapian Club, Nov. 18, 1915.

alimentary canal, such as hernia, volvulus, intussusception, tumors, adhesions, etc., are excluded from the discussions of this paper.

According to Boas both the paretic and paralytic conditions are confined to the large intestines only and entirely unknown to the small ones.

Why this broad statement is made by Boas I cannot explain as both the large and small intestines receive their nerve supply from the cerebrospinal and sympathetic nervous systems; although the colon, as far as I am able to determine, receives no innervation from the spinal nerves but is supplied by the sympathetic and ganglionic nervous system, while the balance of the large intestines, viz: the sigmoid and rectum receive branches from the sacral plexus as well as the sympathetic and ganglionic nervous systems.

The small intestines are innervated by the sympathetic and ganglionic nervous system with a communicating branch from the pneumogastric. These unite to form the Auerbach plexus between the circular and longitudinal muscular fibres and from these emerge fibres to the submucous and mucous tissue forming the Meissner plexus.

Both the small and large intestines have the same number of layers, viz: four,—serous, muscular, submucous and mucous. Why, therefore, the condition of intestinal paralysis, paresis, atony, etc., is confined exclusively to the large intestine, I am at a loss to explain. That the condition of paresis, atony, stasis, etc., does exist at times in some portion of the intestinal tract, no physician or surgeon can deny. Neither can it be denied that it is one of grave danger at times as surgeons doing extensive operations on the alimentary canal have experienced.

The chronic condition is one of obstipation and although the immediate effects are not as disastrous as in the acute, the ultimate results are the same.

Among the causes of the chronic type may be mentioned congenital malformations, tight sphincter, constant use of strong cathartics, excessive and frequent use of enemata, (this producing an over-distension of the colon and muscle exhaustion) frequent child bearing causing relaxed abdominal walls, thus losing an important auxiliary force in defecation. Irregular habits, both as to meals and defecation, are causes, as well as improper foods, overfeeding, intestinal indigestion, this producing fermentation and gas formation and thus leading to colon distension and acute dilatation. Neurotic and emotional disturbances are also frequent factors by acting on the inhibitory nerves (the splanchnic).

Arteriosclerosis and Basedow's disease are mentioned as

causes, also narcotic and astringent drugs are causative factors.

The symptoms are those of constipation and constipation is a cause as well as an effect of the disease. Other symptoms are sallow skin, anorexia, loss of weight, coated tongue and distended abdomen, gaseous eructations and emotional disturbances.

Its treatment has been as varied as its causation. The first treatment should be the correction of faulty and vicious habits, such as irregular feeding, improper foods and postponing the calls of nature and thereby producing muscular exhaustion and distension. Various forms of electricity to the abdomen and lumbar portion of the spinal cord are recommended and especially the Faradic current.

Massaging of the abdomen and abdominal pressure while lying in bed by the use of a sand bag, also abdominal belts have long been used.

Stretching of a tight sphincter muscle sometimes gives much improvement. Various laxative drugs, such as cascara, podophyllin, aloin, and also drugs acting as cerebrospinal stimulants, such as nux, ignatia, strychnine, etc., are of decided value when combined with some of the former laxatives. A popular and somewhat effectual drug in treating this condition is white liquid paraffin of the Russian oil type.

One of the most effectual means in my hands has been the use of the Bulgarian lactic acid bacillus grown in milk. It is most efficacious in those cases where the paresis is due to an intestinal toxæmia and acts both as a food and drug.

A great deal has been written of late of this condition under the name of intestinal stasis and I believe that Lane was the first to use the term.

Bainbridge compares the intestinal canal when in the condition of stasis to a faulty sewer system in which low points exist, thus producing slowing and stagnation of the stream. To correct this it is now the fad to operate on the colon, lifting up the low points and attaching them to some portion of the abdominal wall or short circuiting the intestine by an intestinal anastomosis, thus overcoming the Lane kinks and other faulty conditions.

Comparing the drainage in the intestinal canal to a sewer system to me has seemed farfetched for if the peristalsis were unimpaired the bowels would move in man or beast in an inverted position, i.e., heels up and head down, thus making all points in the canal low points.

This to my mind disproves the similarity of the intestinal canal to a sewer system.

I now come to the part in the discussion of this paper in

which I am most interested and which prompted me to write it, viz: the acute intestinal paresis and its treatment.

The acute parietic condition is one of recent obstipation, having many of the physical and clinical symptoms of mechanical obstruction of the bowels, minus the pain and localized tenderness and the absence of any tumor.

Its causes are almost as numerous as the chronic type and decidedly more serious as to immediate consequences.

Many cases make spontaneous recoveries while others go from bad to worse under the most approved treatment.

Among the various causes of acute intestinal paresis may be mentioned appendicitis, peritonitis, embolism of the mesenteric artery, prolonged, difficult and instrumental deliveries in obstetrics. Traumatism or blows over the solar plexus, operations on the testicle and tapping an inflamed hydrocele may produce it. (probably reflexly) also operations on the tubes and ovaries and prolonged anesthetics.

Roughly handling and undue exposure of the gut during intestinal operations are common causes. In fact this is as great a bugbear to the surgeon as a peritonitis and has been extremely difficult to overcome.

The meteorism in typhoid fever is undoubtedly also one of intestinal paresis due to ulceration, notwithstanding the statement made by Boas that paresis of the small intestine is unknown.

Pneumonia is also not an unusual cause and, by the way, let me digress for a moment.

Not long ago I was called to see a child with lobar pneumonia which had been diagnosed as appendicitis by a local surgeon and he was about to operate, but I insisted that it was a case of pneumonia. The operation was postponed. The abdominal symptoms were those of constipation, abdominal tenderness and distension, but a big dose of castor oil in this case removed the abdominal distension and tenderness.

Three days later there was a crisis followed by a rapid convalescence and recovery.

Not all cases of pneumonia with intestinal paresis respond as readily to castor oil as the following case will show, viz:

Mrs. W. Aet. 46. Sent to hospital with double pneumonia.

On the fifth day of her illness developed obstipation with considerable abdominal distension. With this came increased frequency and labor in breathing and a rise in pulse rate. Cathartics were ordered but no action; again repeated with no result except increased distension and greater difficulty in breathing. Noble's enema was given but the only result was a slight return of the enema.

The abdomen was now greatly distended and tympanitic.

The diaphragm was crowded upwards, thus interfering very much with an already embarrassing condition of the lungs and heart. The breathing became very noisy, labored and difficult. The finger tips and lips were becoming cyanised.

The patient became delirious and the heart rapidly failing although she was getting hypos of camphorated oil and strychnine alternately in connection with one ounce doses of whisky. All treatment seemed to be of no avail and the patient was actually dying. Her blood pressure had dropped 40 points. Her friends had given up hopes and were prepared for the worst.

We had about exhausted our medical resources but as a last means, owing to the sudden dropping of the blood pressure and recollecting the effect of Pituitrin on raising blood pressure, also the effect that it has when given to parturient women in producing a desire to go to stool, we gave 1/2 c.c. of Pituitrin very slowly into the median cephalic vein. Within 30 seconds there was the most remarkable effect I ever witnessed of any drug on a human being, viz: the expulsion of large quantities of flatus with a large liquid stool that nearly filled the bed pan. The abdomen in less than three minutes was down to its normal condition. The only thing to which I could liken it was the deflating of an auto tire after removing the valve, so rapidly did the abdominal distension subside.

The frequent and labored respiration began to lessen immediately. The heart's action picked up and the cyanosis rapidly disappeared.

In fact her convalescence started from the moment of her intravenous injection and in ten days she left the hospital practically well.

Since using this I have learned that in two Pittsburgh hospitals it is a standard treatment after all cases of abdominal section and that no intestinal paresis has occurred since its use was instituted.

In looking up medical literature I find that Bell and Hix recommend liquid Pituitrin in intestinal paresis. Bidwell also reports the use of Pituitrin in laparotomy cases. Beginning twelve hours after the operation he gives 1/2 c.c. every four hours for three days intramuscularly and from his results he considers it evident that Pituitrin has a very marked effect on the muscular coats of the bowels and that it is able to overcome the temporary paralysis due to their exposure at the time of operations. All patients passed flatus freely within a few hours of the first injection and were free from abdominal pain or distension.

The pulse rate remained much lower than usual and after

some of the severest operations the pulse did not go above 80.

I feel certain that if Bidwell had given his Pituitrin intravenously he would not have had to wait an hour for the passing of flatus.

Cushing states that the liquid extract of the posterior lobe of the pituitary body acts directly on the involuntary muscles, such as those of the heart, uterus, stomach, intestines, etc.

He gives various other actions on different organs, but these have no relation to the subject under discussion.

I make no claim as to original discovery of the stimulating action of Pituitrin on the muscle fibres of the intestine, although as far as I know I am the first to use it intravenously for that purpose.

Dr. W. H. Park, director of the Research Laboratories of the New York Health Department, states that an injection of diphtheria antitoxin administered intravenously will act in one-tenth of the time than when given subcutaneously. This he has proven by the Schick test. Why then is it not fair to assume that Pituitrin acts the same way?

Bidwell administered Pituitrin intramuscularly for intestinal paresis and gets results in about one hour. We administered it intravenously and got results in 30 seconds.

In the acute intestinal paresis I believe we have in Pituitrin a most valuable drug and will prove a life saver in a great many of these conditions.

Since reading the above paper I met with a case that did not respond to Pituitrin intravenously, but the cause was very evident as the following will show, viz:—

Mrs. K., operated on for removal of gall bladder with extensive dissections for adhesions. Patient did well up to third day when pulse began to go up with slight rise of temperature. Abdominal distension and no bowel movements. 1 c.c. Pituitrin was administered intravenously but the usual prompt expulsion of flatus and stools were not in evidence. Pulse became more rapid and distension greater, but not nausea or vomiting.

A second operation was made and there was found 42 in. of gangrenous gut due to embolism of mesenteric artery and which was resected.

27 Jewett Avenue.

Imperforate Hymen. Herbert R. Spencer, *Lancet*, April 15, advocates routine examination and prompt rupture with scissors, using oiled gauze. He reports a case. His argument is mainly on account of the serious troubles arising at about the age of puberty.

Exsudative Diathesis—A Review

By CARL G. LEO-WOLF, M. D., of Buffalo, N. Y.

(Continued from June issue.)

Therapy:

Feeding: Czerny (15) sums up his views on the connection between exsudative diathesis and feeding as follows: The idea that milk and eggs are the best food for children is erroneous, and is most likely a relic of the days when rickets and scrophulosis were regarded as diseases due to an insufficient supply of protein in the food. To make the general statement that woman's milk is the best food for infants is also wrong. We can only assert that the mortality amongst children at the breast is lowest. Many children do not thrive at the breast and show all kinds of symptoms while on this food, these disturbances are due to constitutional abnormalities, of which exsudative diathesis is one. Thus for instance seborrhoea faciei is due to the feeding which brings out the exsudative diathesis, and one of the symptoms of this is seborrhoea.

The growing plant at first needs only water, as it can live and grow on the material contained in the seed; later however it will need other food. The same is true of the infant, which can live on mother's milk, which is poor in building-material, up to nine months, provided it is normal and has enough building-material in its body. If it should be abnormal, however, it will suffer from diseases due to faulty metabolism, such as rachitis, anemia, status lymphaticus, spasmophilia or exsudative diathesis.

The first two years of life are of the greatest importance as concerns the appearance of exsudative diathesis.

Measles and florid tuberculosis bring out the symptoms of latent exsudative diathesis, but by proper feeding we can make the symptoms of it disappear even in these cases, because diet can control exsudative diathesis just as well as it can diabetes.

Czerny (12) further states that three points are important in the control of exsudative diathesis, namely: 1. The kind of feeding, 2. The condition of the nervous system, 3. Inter-current infections. By treating this trio we can reduce the symptoms of exsudative diathesis to a minimum, though we cannot cure these altogether. As to the feeding, every kind of feeding which precludes fattening improves the condition of the child. The fattening may be due to 1. Excessive amounts of proper food, 2. Poor quality of the food, 3. Both. The physician must therefore ascertain first of all in every

case, what the child has eaten since its birth, in order to be successful.

In children after the second year of life the diet should be principally vegetarian, with only small amounts of milk, not more than one-quarter to one-half litre of milk a day. Eggs are the worst of foods for exsudative children; cream, butter and sugar are also bad and should be allowed in small amounts only.

The feeding during the first two years of life is more difficult, because then milk is the principal diet, and the physician must so guide the feeding that the child may get along with minimal amounts of milk. The general appearance of the child and not the scales should determine the mode of feeding in every case. After the sixth month, especially in fat children, soups and vegetables are given.

Feer (20) believes that the congenital disposition and the mode of feeding should be considered as the causes of exsudative diathesis. To fight the disposition these children must be fed sparsely. They must not get milk, butter, eggs, nor meat; they should have little sugar; they are allowed large amounts of fruit and vegetables.

Simpson (84) on the other hand denies the harmful effect of milk in infants with eczema, and he does not want to change the diet of the infant as long as it is thriving.

Finkelstein (22) is of the opinion that the relations between eczema and the mode of feeding and the net gain in weight are by no means simple. Only the overfed infant may show an improvement of its eczema with reduced feeding, though this will not be necessarily so.

Steinitz (88) in his report from the Vegetarian Children's Home in Breslau, attributes his good results in keeping down the manifestations of exsudative diathesis to the diet. He is, however, convinced that not the vegetarianism was the principal therapeutic factor, but the avoidance of all fattening.

Variot (94) asserts that eczema is due to the "Eczematogenous" qualities of mother's milk, and that it may be cured by a change of the wet-nurse or of the food. Ibrahim, who reviews this paper, asks, however, why this milk was not tried on other babies who did not have exsudative diathesis?

Czerny (16) cites a very interesting experiment, which also proved to him that the clinical picture, which was formerly called scrophulosis, is a combination of the symptoms of tuberculosis and of exsudative diathesis.

On the advice of a visiting colleague the children in his tuberculosis ward were given all the cod liver oil they could digest; no change in the weight-curve was apparent from this, but one after another of these children developed eczema

of the face or scalp, and after a few weeks the tuberculosis ward was a typical scrophulosis ward, whilst before this by proper feeding all the symptoms of exsudative diathesis had been avoided in his little tuberculous patients. After discontinuing the administration of the cod liver oil the scrophulosis disappeared again within a few weeks.

Climate: v. Planta (69) believes that the lessened amount of oxygen in the mountain air causes a change in the metabolism. By this the exsudative diathesis and not the asthma are to be cured. He therefore advises a long-continued sojourn, of not less than one year, as otherwise the asthma may return. This climatic treatment should be carried out in an institution, so that the diet can be watched and strictly regulated. He has come to these conclusions from his observation of the fact that mountaineers have less constitutional abnormalities and then in a milder form.

Bockhorn (8) advises a sojourn of three months at the sea-shore for children with exsudative diathesis, because the treatment of this means the prevention of tuberculosis.

Medicines: Krasnogorski (41) proclaims himself an adherent to the theory of Eppinger & Hess, who attribute some of the symptoms of exsudative diathesis to vagotony, an over-irritability of the autonomous innervation. He therefore recommends the administration of atropin in increasing doses. He found that the atropin was born well by the children, who could take the adult dose without any symptoms of poisoning. He claims that this drug exerts a favorable influence, in all cases, upon the exsudative symptoms, such as wheeping eczema, but especially chronic exsudative bronchitis.

Schreiber (82) has seen good results from alkaline mineral waters, also arsenic periodically, and calcium glycerophosphate, together with a sojourn at the sea-shore. He urges great care in the administration of iodine in these cases.

Conclusions: I realize fully that the literature which I was able to collect on this subject, is by no means complete, as I could consider only that within my reach. I must therefore ask the indulgence of those authors whom I have inadvertently overlooked.

I have let the different authors propound their views for themselves, without any comment on my part, because I wanted to write a review on this subject rather than a monograph.

I have endeavored to avoid repetition, though this was not always possible, as I did not want to pick the different papers, which sometimes covered the whole range of our topic, to pieces any more than I could help doing.

Complicated though this subject may still appear at the first

glance, I trust that the following points will come out saliently:

1. That the old theory of the crases had to be revived, in order to explain successfully some of the morbid phenomena.
2. That different diatheses will be encountered, of which exsudative diathesis stands out as a clear entity.
3. That exsudative diathesis is a constitutional abnormality which is usually inherited, and that it is the result of a disturbance of the metabolism.
4. That it appears in the different organs of the body, where it is clearly manifested.
5. That it will modify the course and appearance of other diseases, especially those of an infectious nature.
6. That its therapy is principally dietetic. That climatic changes may also have a beneficial effect, but that medicine is of minor importance in its treatment.

Finally that we must never lose sight of the fact in medical practice that we are taking care of patients and not of cases, and that this factor is the "x" of the equation.

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- 481 Franklin Street.
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Renal Diabetes. G. Bergmark, Upsala Läkare förenings Förhandlingar, Jan. 21, reports the case of a woman who showed slight glycosuria but none in the blood. Fasting produced sugar-free urine in the morning, otherwise dietetic measures did not remove the glycosuria. Hyperglycaemia persisted "abnormally long" after giving 100 grams of dextrose. He, therefore considers that the case was not renal but due to some metabolic defect. Of the reported cases of Renal Diabetes, he admits only Gram's case as defensible and is rather inclined to doubt there is such a condition. (Note: It has often occurred to us that the glycogen function, of which we hear so much in physiology and so little in practical medicine, deserves close clinical study and that this might clear up a good many problems in regard to diabetes and glycosuria).

New Blood Stain. B. Lemchen of Chicago, Med. Rec., April 1, stains and fixes the smear with a saturated solution of benzidin in absolute alcohol for $\frac{1}{2}$ minute. Hydrogen peroxid is then applied for half a minute and the preparation is washed and dried. The red cells, including both protoplasm and nucleus of nucleated reds, are stained blue as are also strands of fibrin if time has been allowed for their formation. White cells and plaques do not stain. Obvious deductions are drawn as to the non-relation of the latter to red cells.

Vitamines. Seidell, Pub Health Reports Feb. 18, has developed a stable vitamine from brewer's yeast, whose use has prevented or cured polyneuritis in pigeons fed on polished rice—i.e. rice mechanically freed from vitamins which are contained almost solely in the seed coats. Pellagra, beri beri, scurvy and possibly rhachitis are diseases ascribed to lack of vitamins.

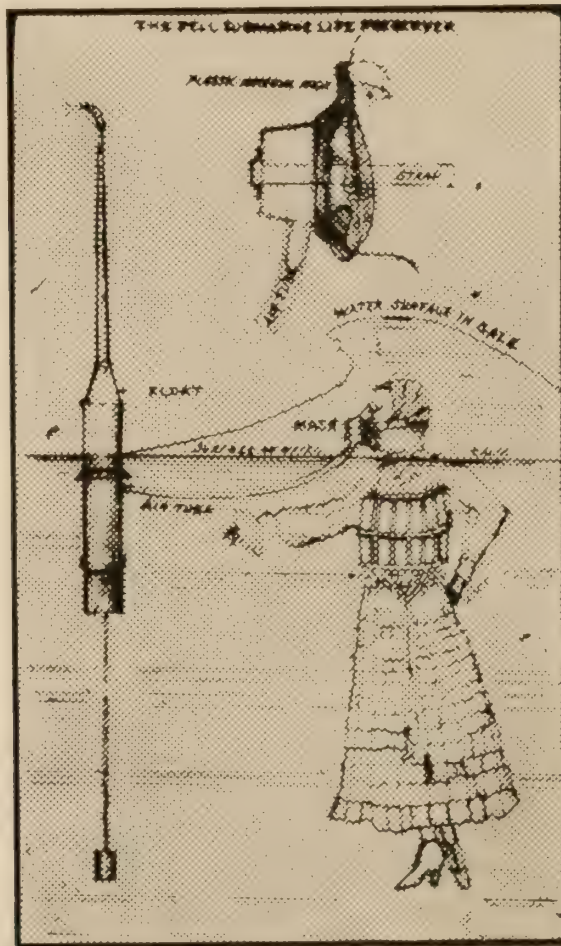
The Fell Submarine Life Preserver.

Continued from the May number of this Journal.

By GEORGE EDWARD FELL, M. D.

Several who read the article in the May number of this journal on the above subject, have urged that the text was incomplete without a cut of the device. One is provided here which, though on a small scale, supplies the want so that the simple device can be clearly understood in connection with the article mentioned.

On the left of the picture is seen the upright Air Supply Float with its extension well above the surface of the water. The float is a cylinder which when floating upright, presents a cross section of only four and one-half inches to the sea, and is so buoyant that it carries the small extension tube



three or four feet above the surface of the water at all times except when a wave or comber strikes it, when it may be careened but if so, the careening aids in preventing water from gaining access to the float. The short rubber tube at the tip of the extension faces away from the comber, and is an additional preventative to access of water.

The Air Supply Tube is seen connecting the face mask on the face of the young lady, with the float. The attachments are strong and not easily put out of order. The tube is also strong and stiff to aid in retaining the air float at its full length of the tube from the wearer of the mask. To prevent the air from pulling the mask from the face a safety chain is provided, not shown in cut, shorter than the air tube, so that any sudden strain comes upon the chain and relieves the tube completely. The safety chain has a band which fastens about the neck of the person using the apparatus.

The Face Mask was fully described in the May journal.

Experiments with the apparatus in the lake and in swimming tanks confirm all former statements as to the reliability of the float to resist the sea, and the face mask to keep out the water.

The young lady in the picture we may assume did not have time to change her clothing. She should have had good warm woolen garments, but it is better to go into the water with good protective garments than light flimsy clothing. A water tight garment that will keep the wearer dry will yet come I believe, and will assure a long submersion without the danger now experienced from the elements.

The horrible and useless slaughter of human beings by the warring naval belligerents of Europe, and the senseless rules still followed, I believe by naval authorities, to the effect that the sailors and officers must go down to death if their vessel sinks, should be changed, and these valuable lives saved by perfected life preservers on the plea that a live sailor is always better than a dead one to the country he is fighting for. How many thousand lives might have been saved by the Fell Submarine Life Preserver, had it been utilized at the battle off Jutland, is a question of great interest.

Intra-Abdominal Use of Mineral Oil. G. Frank Sammis, L. I. Med. Jour., May. The first case was operated on for adhesions, about a year after an operation for appendicitis. The adhesions reformed and operation was repeated, the oil being clear and unchanged. The second operation was successful, posture being employed to distribute the oil. The second case was successful, 2 ounces of oil being injected.

Generalized Vaccinia. Ochsenius of Chemnitz, quoted in N. Y. Med. Jour. reports a case in a child aged 2. The original 4 vaccination spots pursued a normal course. Fever followed, with pustules over most of the body, including four on the tongue. The swelling interfered considerably with feeding. He has been unable to find a report of any other case of vaccinia of the tongue.

BUFFALO MEDICAL JOURNAL

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Number 11

Care for Superannuated Physicians.

We feel keenly that definite provision should be made for physicians and their families, who are in need on account of old age, sickness or any other cause. The analogy between the clergy and the medical profession is commonly emphasized in speeches on appropriate occasions. Are not the two professions in reality close enough in their service to humanity, so that the analogy may be extended to such provision against want? For example, one of the protestant denominations is raising an endowment fund of several million dollars, representing an average per capita tax on its members of almost exactly \$7, about \$2 more than the average per capita tax of the state of New York. The fund will represent just about \$1000 per minister and it is obvious that the interest on this amount, dispensed as needed, or even paid to an insurance company for an old-age and disability annuity, is adequate to provide against actual suffering. When we consider further that these figures imply one minister to about 150 church members, it is obvious that the fund is far higher than would have been necessary if any reasonable economic principle had been applied to the ordination of clergymen.

At the outset, a difficult problem is encountered. The clergy have a well organized, definite association of laymen, trained to give for church purposes in general. On the contrary, the bond between the physician and his clientele is much less firm, even when the physician considers himself a "family doctor." The influence of the physician in

securing contributions for medical philanthropy from which he derives no direct benefit and in regard to which he may be absolutely disinterested, is much smaller, measured in dollars, than the corresponding influence of the clergy. So far as we are aware, no appeal has ever been made to the laity, for benevolence to physicians themselves, considered as members of a profession that is largely altruistic. Of course, physicians as individuals, have received such benevolence on account of family, personal, fraternal and other affiliations or simply as paupers. To what extent will the laity contribute to the support of needy physicians simply on the ground of their having exercised a function in regard to society in general, that compares closely with that of the clergy? This question suggests another. Without in any way implying that the clergy should have taken the same course, it is conceivable that the medical profession may feel that they themselves will assume the burden of providing for their own professional colleagues or at least that they will accept only such contributions from laymen as are absolutely voluntary and come from such large fortunes or bequests as to represent no sacrifice of self or dependents of the donor.

Such questions cannot be answered entirely from the standpoint of pride; the actual ability to meet demands must be considered. Quite accurate statistics of clerical incomes are available. The minimum ministerial salary allowed at present in many subdivisions of various religious denominations is \$1000. Past estimates show salaries down to half of this amount but it must be conceded that the low estimates apply mainly to clergymen who have not in any sense complied with the formal educational requirements and training of their own profession or any other, by analogy. Men of the same grade of preparation for healing bodily ills would scarcely be included in the medical profession at present; although an occasional obituary with "years of practice" instead of the name of a medical school and date of graduation, shows that the analogy has held good in the past. Frequently quoted averages of net medical incomes agree closely with the figures set for the clergy but we are inclined to believe that such statistics are practically incorrect, perhaps because of the inclusion of incomes at or near the zero point during the inevitable stage of post graduate medical study, in hospitals, etc., and during the equally inevitable though regrettable period of establishing a practice. Considered *a priori*, it would seem that moderate senile or other physical disability should interfere quite as much with the ability to earn a living by medical practice as by performing ministerial duties, yet observation seems to show

that there are more clergymen unable to hold positions and totally dependent, than there are physicians.

In one respect, the problem is simpler than for the clergy. The multiplicity of religious denominations in this country, even excluding those of small numbers and representing immigration of decidedly foreign peoples, whom we would term "heathen" with no implied discourtesy, is almost inconceivably large. Even counting such denominations of Christians as are numerous, running beyond the million mark, at least a dozen organizations of benevolence, are practically necessary. On the contrary, the medical profession, with a reasonable insistence on conformity to accepted ethical customs, is already practically unified, at least for any such problem as we are considering.

The first practical step toward adequate provision for needy members of the medical profession is to secure some basis for estimates of what would be necessary. We therefore ask our readers to reply to the following questions, anonymously, if preferred:

1. Do you favor or oppose systematic provision for superannuated and disabled physicians?
2. If favorable, should such provision be made solely by the medical profession or should lay assistance be invoked, and to what extent?
3. Do you yourself need such assistance at present and, if so, on account of old age or what other cause?
4. So far as you can judge, what are your own chances of requiring such assistance, in case of surviving past the period of work, or for disability otherwise arising, with due regard to insurance, probable support by children and other means of support?
5. Would you contribute for such a fund, to what amount, do you advise raising a fund annually as required or the establishment of an endowment?
6. Aside from demonstration of need of such a degree as to warrant relief, would you advocate any special requirement beyond the possession of a medical degree and bona fide practice along lines generally recognized as ethical?
7. Please make any additional suggestions.

We may say that we have no interested motives in agitating this matter and that we are willing to co-operate to any reasonable extent in caring for unfortunate and deserving members of the profession.

Prenatal Influence?

As to the gross forms of maternal impression, we can say only that every time we satisfactorily adjust our own mind

to the logical, scientific, state of scepticism some one publishes a report, perhaps illustrated and at any rate of indubitable authenticity showing, as perfectly as can be shown by the post hoc, propter hoc argument, that maternal impressions do determine foetal development.

The N. Y. Medical Journal has in its issue of Nov. 13, editorially denied not only this crude action of maternal impressions, but the influence of the mental state of the pregnant woman on the offspring. It is held that whatever psychic characteristics are transmitted to offspring, are potentially present in the original reproductive cells. This extension of the logical scepticism as to maternal impressions, does not seem to us wholly logical. The ordinary anatomic and physiologic development of the foetus is not to any large degree a matter of individual heredity but mainly one of racial evolution. That gross departures from the normal development can be caused by transient ocular or psychic impressions seems absurd and, at best, is only occasionally and coincidentally supported by observation. Minor physical characteristics, such as stature, color of hair and eyes and the like, are as strictly material as the general characteristics of two-leggedness, the partition of the extremities into five and the like. But, as has been most thoroughly demonstrated by Mendel and his disciples, even the minor characteristics are by no means determined directly by the parents but represent the same tendencies of racial evolution and distribution as the general ones. The same materialistic argument which denies the possibility of mental—including moral—impressions during pregnancy, might with equal force, be applied to the assumption that the guiding factors in such development are, somehow, included in the reproductive cells.

Under these circumstances, it seems allowable to be guided by empiric observation. We frankly admit that we incline strongly toward the belief that the marked differences noted in the psychic make-up of various children of the same parents, actually reflect the tendencies temporarily present in the parents at the time of conception and, more particularly, those manifested by the mother during the period of pregnancy. That there are numerous exceptions must be admitted, as also that whatever such tendencies may be conceded, may also be overwhelmed by post natal influences. But the tendency to reproduce in successive children the life periods of the mother, seems to us a very general fact. Obviously, mere aspirations on the part of the mother cannot be depended on to produce results beyond the general hereditary possibilities but it does not seem unreasonable to assume that they may have as marked an influence on the

development of the psychic characteristics of the child as personal hygiene on the mother's part may have on the physical development of the foetus.

One important practical fact remains. Even one who believes that the mother can in no way influence her child's psychic and mental development by conscious effort, must admit that her aspirations toward high ideals can do no harm and that, in general, they will stimulate her to an observance of hygienic principles which have an admitted influence on the physical and indirectly, the mental and moral development of the child. Whatever danger rests with falsity of opinion, is all one way.

Centralized Telephone Bureau for Physicians.

In some cities where physicians congregate in office buildings, messages are transmitted through a switchboard and the attention to telephones during the physician's absence is economically cared for. In Denver, a private enterprise has recently taken up this work. Cards are distributed bearing the legend "If you cannot find your physician call No. ____". In the early days of the independent service in another city, all instruments were equipped with a pointer which showed that a call had been missed and a special operator took the numbers calling in vain. Edison has invented a phonographic attachment but it is not in practical operation, so far as is known. We knew one young physician whose personal acquaintance with operators enabled him to have his telephone watched in his rather frequent and irregular absences from his office.

Would it not be possible to have a notice published in telephone directories and otherwise brought to the attention of the public that by calling a certain number, information as to the whereabouts, office hours, residence apart from office, vacations, etc., of any physician could be obtained and that messages might be left for him? This could be attended to by the telephone company, by a nurses' register, by any medical organization with a home or in some similar way. It would cost something, however managed and it would be worth a reasonable fee. One free service to a physician not enrolled, would probably secure him as a subscriber. If not, it could simply be reported that that physician was not on the list. A card index would easily give the hours, routine and probable places at which a physician could be reached at any time. Temporary memoranda could be made to anticipate calls and, in the case of absence from town, telephone out of order, etc., the caller could learn when and how

to reach the physician desired. Of course, any such system to be of general value would have to be absolutely impartial, accommodating and free from graft.

Raw or Pasteurized Milk.

Some years ago, a physician who was an alderman of the city of Buffalo, introduced an ordinance requiring all milk sold to be pasteurized. At a public hearing, several prominent physicians spoke against the measure, insisting on the superiority of clean, raw milk. In the last few years, there has been an increasing tendency toward the voluntary or compulsory pasteurization of milk, voluntary on the part of milk companies both as to "talking point" for their product and because pasteurization lessens the perishability of milk and renders its handling on a large scale more economic. In general terms, the pros and cons of raw and pasteurized milk have not changed. There is an obvious advantage in delaying decomposition and in lessening the bacterial content. On the other hand, it is still admitted by most authorities, with more or less scientific exactness of explanation, that pasteurization changes the constituents of milk so that, on the whole, it is not quite so valuable as a food as in the raw state. We prefer to leave the issue in these very general terms, to express no opinion as to the aggregate superiority of raw and pasteurized milk under such practical conditions as must apply to the large bulk of milk sold in large cities but to emphasize the fact that the time is ripe for a thorough, scientific and practical investigation of the matter, so that a policy so important to the public health may be firmly established without delay.

BOOK REVIEWS

Books mentioned may be inspected at and ordered through this office. So far as possible, books received in any month will be reviewed in the issue of the second month following.

The Medical Clinics of Chicago. Volume I, Number VI, (May 1916). Octavo of 229 pages, 22 illustrations. Philadelphia and London; W. B. Saunders Company, 1916. Published Bi-Monthly. Price per year: Paper, \$8.00; Cloth, \$12.00.

Hamburger's clinic on the Allen treatment of diabetes con-

tains two points of great practical interest: (1) "While it has been conclusively proved that diabetics even of the severest type may be rendered sugar-free by the Allen method, (2) it will probably take years to determine whether such patients do best in the long run under such conditions." We are disposed to question the first part of this statement, not from personal evidence or opinion but out of deference to the numerous authorities—more numerous in the past than the present,—who have recognized a type of diabetes in which sugar is formed from non-carbohydrate material, remembering that a patient who receives no food is virtually on a diet of fat and proteid. Williamson's clinic on Biliary Hypertrophic Cirrhosis of the Liver is especially interesting because of the rarity of the disease, especially in America. This case occurred in a Russian. Abt's clinic on "rachitis" may not throw new light on this common and poorly understood condition but it ably assembles the various facts. By the way, just why are so many medical writers doing an ectomy on rachitis? As we understand it no Greek word began with r alone.

Therapeutic By-Ways. Being a collection of therapeutic measures not to be found in the text books collected from all sources. Condensed and arranged by Dr. E. P. Anshutz. 195 pages. Cloth, \$1.00 net. Philadelphia, Boericke & Tafel, 1916.

The author has presented therapeutic suggestions, alphabetically by titles of conditions and diseases, conceding that some of them are foolish or worthless. We rather question whether an author should be quite so broad-minded but the inclusion of all sorts of therapeutic suggestions certainly adds to the interest of the book and perhaps the puzzled doctor will instinctively glean the rational ones from the chaff. Dosage ranges from the decillionth potency to fair sized amounts of crude drugs and tinctures, infusions, etc.; both external and internal administration of drugs and various devices not requiring drugs are included.

Les Fievres Paratyphoides, Dr. J. Carles, Bordeaux. Published by J. B. Bailliere et Fils, Paris. 95 pages, 15 illustrations, 1½ francs.

This is one of the series of Actualites Medicales (the word actual in French signifying present or up-to-date). Even before the war but especially since the opportunities which it has afforded for amassing large statistics paratyphoid has become a common and definitely recognized condition. The

typhoid bacillus, A and B types of the paratyphoid and the colon bacillus, are thoroughly established and subject to differential diagnosis and differential or combined prophylaxis. To a certain degree, differential diagnosis may be made clinically though it rests mainly on bacterial reactions. This work puts the whole subject on a perfectly definite basis. Whether the differentiations applicable in Europe will be found literally to apply to conditions in America is a question to be settled by further investigation. We strongly advise both laboratory workers and practitioners to read this book in order that we may, in this country, be prepared to recognize in their true relations what are no longer to be considered as mild or atypic cases of typhoid.

Physical Anthropology of the Lenape or Delawares and of the Eastern Indians in General. Ales Hrdlicka, Bureau of American Ethnology Bulletin 62. 130 pages, illustrated.

Roughly speaking, the aborigines of the eastern half of N. America, up to the region occupied by the Esquimaux are divided into two racial groups, the more northern dolichocephalic (corresponding somewhat with the earlier linguistic groups of Huron-Iroquois and Algonquins) and the more southern brachycephalic, though mutual penetrations of the two races into each other's territory and blending of races are observed. Dr. Hrdlicka's studies constitute a remarkable monograph on osteology with minute descriptions both of racially characteristic points and of individual anomalies. Quite aside from the interest which one may have in American anthropology, the book is well worth examination merely to establish a standard of careful osteologic study.

The Practical Medicine Series under general editorship of Chas. L. Mix, A. M., M. D., of Chicago. Published by the Year Book Publishers, Chicago. 10 volumes, \$10.

Vol. 1, 1916, General Medicine, edited by Frank Billings, M. S., M. D., 384 pages, illustrated, \$1.50 separately.

While this series is a review of periodic literature and necessarily discusses subjects as they arise, it seems to us that this volume is more than usually interesting and valuable from the amount of material concerning rarer diseases and those involving ductless glands and other structures, in such ways that pathogeny rests largely on physiology.

Elementary Bacteriology and Protozoölogy. For the Use of Nurses. By Herbert Fox, M. D., Director of the William Pepper Laboratory of Clinical Medicine in the University

of Pennsylvania. Second Edition, Revised and Enlarged. 12mo, 251 pages, with 68 engravings and 5 colored plates. Cloth, \$1.75, net. Lea & Febiger, Philadelphia and New York, 1916.

It may, of course, be questioned whether this subject is not too abstruse for the nurse although it may be said that the author has presented it in a very simple and understandable form. We are inclined to believe, however, that aside from any practical considerations, such a book is likely to stimulate the interest of any intelligent nurse in her work. But nursing, especially with the stimulus of existing war in a large part of the world, is becoming more and more a career for highly educated women and even for men of a much higher grade than formerly. There are special fields of nursing, military, municipal, etc., in which bacteriologic investigation is of importance almost as a routine and this routine cannot be successfully carried out except through the active, intelligent co-operation of the nurse. For such duties as these, the author has facilitated preparation in a most skillful handling of his subject.

Pulmonary Tuberculosis. By Maurice Fishberg, M. D., Clinical Professor of Tuberculosis, University and Bellevue Hospital Medical College; Attending Physician, Montefiore Home and Hospital for Chronic Diseases, New York. Octavo, 639 pages, with 91 engravings and 18 plates. Cloth, \$5.00, net. Lea & Febiger, Publishers, Philadelphia and New York, 1916.

This is a highly conservative text book, the author striving to include all known diagnostic and therapeutic measures rather than to advance novel theories. What will appeal strongly to the general practitioner is that the author has subjected every point to the test of actual, extensive experience and that while the clinical studies upon which the work is based are not exclusively among patients in private practice, nearly all cases have been observed under similar conditions. The author lives and finds his clinical material in New York, and, for the greater part of his work, is compelled to deal with his patients under the exactions of city life. We do not mean by this to imply that a work of the same nature written by one in charge of an institution located in an ideal climate and at an ideal altitude and with the advantages of institutional control of diagnostic and therapeutic measures, would be an easy task or without value to the general practitioner. Yet it seems to us that the guidance of one compelled for the most part to care for his patients under

the disadvantages of urban life and without special hygienic facilities, is more apt to be applicable to the needs of the general practitioner contending with the difficulties of control of tuberculosis in private practice.

A Treatise on Medical Practice, Based on the principles and therapeutic applications of the Physical Modes and Methods of Treatment (Non-medicinal Therapy). Otto Juettner, A. M., Sc. M., Ph. D., M. D., of Cincinnati. Published by A. L. Chatterton Co., N. Y. 519 pages. \$5.

To prevent a misconception of the author's point of view, it should be stated that he is affiliated with the A. M. A. and various local and national, as well as foreign medical organizations representative of the medical profession in general. He writes, therefore, without sectarian bias and with the proper personal preference for certain forms of treatment as contrasted with others. We do not understand even that he opposes the use of medicinal agents ordinarily so-called but that it is his wish, in this work, to present other means which may be employed by all practitioners, irrespective of such disputes of school or personal opinion as apply to drugs. The work is arranged alphabetically and is, as strictly as possible limited to therapeutics, although in the general discussion of X-rays, water, suggestion, vibration, etc., he has entered into underlying principles. We do not feel either that the reader should neglect medicinal therapy or that the author would wish him to do so but that this concentration of the mind upon non-medicinal measures is highly suggestive and valuable.

The Locust Flower and the Celibate: Two plays by Pauline Brooks Quinton. Sherman, French & Co., Boston.

We have published several articles on medical subjects by Major W. W. Quinton, M. D., of Buffalo and are, therefore, interested in the literary productions of his wife who has already become known as an author, especially along dramatic lines. Both of these plays, whether considered as potentially staged or as "plays to be read" are of strong emotional interest since they appeal to the intellect and represent psychologic insight. The first play illustrates the paradox that, in impressing a basic truth of psychology, the argument gains strength by reverting to the older, discarded beliefs in spirits as in developing the most powerful and most accurate mathematic principles, we must base our logic on the imaginary and impossible. In this play, there are two real characters, lovers, and "shades of money:" Love of a Boy,

Passion of Youth, Flame of Desire, Heart's Ease, Love of a Man, Lesser Loves—who gave as little as they took and were as soon forgot,—and The Dead. None of the former but only the last shade, of the man's dead and well beloved wife, separate the lovers. The central thought of the play is not weakened by argument or conspicuous attempt to develop a purpose. Nevertheless, it looms up as a question. Why is it that in a civilization whose ideals, at least, are lofty and shaped more than any other past or contemporary civilization by the religious conception of a real, self-conscious immortality, the strongest bond of love should be regarded as a purely temporal state of mind, broken off by death?

The Celibate, whose theme is suggested by Das Hexenlied, is placed in Italy in the fourteenth century. It is a strong contrast of passion and love and, more particularly of the conflict between pure love and monastic vows, developed along unusual lines to an ethical decision which suggests an opportunity for dogmatic controversy. Both of these plays possess the element of human interest in great measure and, as intimated, lead to the consideration of various social and ethical problems so that, after the reader has been entertained, he has something left to think about.

Gynecology. Wm. P. Graves, A. B., M. D., Boston. W. B. Saunders Co., Philadelphia and London. 770 pages, 303 half tone and pen drawings by the author, 122 microscopic drawings by Margaret Coneree and Ruth Huestis, 66 illustrations in color. \$7. (Half morocco, \$8.50).

The artistic skill of the author enables him to express himself in pictures as most persons can do only in words. Thus, he has been able to emphasize details in a double way and to convey his exact ideas. Anyone who has attempted to make a professional artist convey his meaning can appreciate the great advantage possessed by an author who can draw. Look carefully at the average landscape: you see trees and plants, but usually no particular kind of tree or herb. Perhaps you can make out that a tree is a willow or a plant, a rose, but you will be unable to say what species and the botanist can usually detect palpable errors. The need of technical accuracy in an illustration of a pathologic condition or of a surgical operation is great. Wisely, we think, the author has taken for granted a knowledge of anatomy. The physiology of the uterus and ovary are discussed somewhat in detail. There follow about 90 pages of scholarly discussion of the relationship of gynecology to the general organism, the ductless glands, mammary glands, skin, organs of sense, blood, bones and joints, etc., being considered in detail while special

headings are made of acute infections, enteroptosis, movable kidney and intestinal bands. To the best of our recollection, no other author has assembled in a text book, so complete a discussion of this kind. The second part of the book, entitled Gynecologic Diseases, is not so like "medical gynecology" as gynecology pathology, the microscopic drawings appearing especially in this part. However, it would be unjust to leave the impression that diagnosis and treatment are neglected. The third part, Operative Gynecology, more closely resembles the prevailing type of text book on gynecology.

A Text-Book of Fractures and Dislocations, With Special Reference to Their Pathology, Diagnosis and Treatment.

By Kellogg Speed, S. B., M. D., F. A. C. S., Associate in Surgery, Northwestern University Medical School; Associate Surgeon, Mercy Hospital; Attending Surgeon, Cook County and Provident Hospitals, Chicago, Ill. Octavo, 888 page, with 656 engravings. Cloth, \$6.00, net. Lea & Febiger, Publishers, Philadelphia and New York, 1916.

Briefly but thoroughly, the author summarizes the opinions as to processes of repair often without expressing a personal opinion but leaving the reader in no doubt as to facts definitely established. The mechanics of fractures and dislocations and the general principles of diagnosis and treatment follow, making up about a fifth of the book. From this point, fractures and dislocations are considered in detail, the latter being described after the fracture of a bone, as nearly as possible according to anatomic location. At first thought, it might seem better to separate fractures and dislocations entirely since the latter cannot, of course, be classified by bones but the frequent association of the two pathologic conditions, the similarity in symptomatology and in the mechanic principles involved in holding a given region in its normal alignment, whether the obstacle is a fracture of an osseous unit or a dislocation of the junction of two such units, are very practical reasons for following the order chosen. While the book makes no special appeal on account of "timeliness"—a much over-worked argument for all kinds of literature—and is a systematic treatise on the whole subject, bone grafting and various other modern methods and devices are well treated.

Embryology, Anatomy, and Diseases of the Umbilicus Together With Diseases of the Urachus. By Thomas S. Cullen, Associate Professor of Gynecology in the Johns Hopkins University. Large octavo of 680 pages with 269 original illustrations and 7 plates by Max Brodel and August Horn.

Philadelphia and London: W. B. Saunders Company, 1916.
Cloth, \$7.50, net; Half Morocco, \$9.00, net.

Many a true word is spoken in jest. It was long ago said that the development of specialism would leave nothing for an original choice but the umbilicus; or that this would be all that was left for the general practitioner. The author has not only shown that a vast amount of research can be centered in the umbilicus but he has pursued his research and directed his practical investigation in such a way as to demonstrate that the general practitioner can by no means neglect this small part of the body for the practical problems radiating from it are numerous and important. The embryology of the umbilical region is illustrated with numerous colored plates. 35 pages of descriptive anatomy follow, with photographic reproductions of various types. Infections, haemorrhages and granulation tissue are then discussed, Meckel's diverticulum, intestinal cysts, tumors, herniae, escape of round worms, calculus formation, etc., follow. The urachus including exstrophy of the bladder, urinary fistulae and other thoroughly practical subjects, takes up 175 pages. For each chapter, bibliographic references are given and there is a final index of authorities beside the general index. We feel that this American book may be compared favorably with the highest type of German concentration while, at the same time, it exemplifies the broadness of view and the practicality more characteristic of French and American works.

The Art of Anaesthesia. Paluel J. Flagg, M. D., N. Y., J. B. Lippincott Co., Philadelphia. 341 pages. \$3.50.

Historic references are given to the use of narcotic drugs in the pre-anaesthetic period and fac-simile letters referring to "ether frolics" and the earliest use of ether for an operation, by Dr. C. W. Long in 1842. General and local anaesthesia, the use of instrumental aids and the entire art of the anesthetist are fully described.

Blood-Pressure: Its Clinical Application. Second Edition, Revised and Enlarged. By George W. Norris, A. B., M. D., Assistant Professor of Medicine in the University of Pennsylvania; Visiting Physician to the Pennsylvania Hospital; Assistant Visiting Physician to the University Hospital; Fellow of the College of Physicians of Philadelphia. Octavo, 424 pages, with 102 engravings and 1 colored plate. Cloth, \$3.00, net. Lea & Febiger, Publishers, Philadelphia and New York, 1916.

The physiologic forces concerned in maintaining blood pressure are stated to be the cardiac systole, the arterial elasticity, the arterioles and capillaries, which afford most of the resistance to the two former factors, the veins and capillaries, forming a reservoir with just enough pressure to fill the relaxing heart promptly, the blood itself, as a practically incompressible medium, and the lymphatic system with its tissue spaces and cavities. Variations in pulse provided the heart has time to fill itself, do not appreciably affect blood pressure. A great many interesting physiologic details are given, which should be thoroughly studied. Instruments and technic follow the physiologic discussion, completing approximately the first half of the volume. Essential hypo—and hypertension, and the relation of various diseases and conditions of strain, shock, etc., to blood pressure are then considered seriatim. One chapter is devoted entirely to the effect of drugs and glandular extracts on blood pressure, with special consideration of the coronary vessels and venous pressure. The bearing of blood pressure on life insurance is fully discussed.

CORRESPONDENCE.

This department is intended for the presentation of news and views not coming within the scope of other departments, and particularly to afford opportunity for discussion and criticism of views elsewhere expressed.

American Association for Labor Legislation.

131 East 23d St., New York City

May 29, 1916.

Dr. A. L. Benedict, Editor,
Buffalo Medical Journal,
Dear Sir:—

Your very excellent editorial on the problem of the Independent poor which appeared in your Journal for May, leads me to think that you will be interested in health insurance as a method of providing medical care for this group.

In such an insurance system as we are proposing it will be possible to provide the necessary medical care, including hospital and nursing attendance when needed, in return for a small weekly contribution divided among the employer, the employee and the State.

In addition, other benefits such as a weekly payment equal to two-thirds of wages for not more than 26 weeks in a year

would be available. Of course you realize that the absence of income during illness of the wage earner is often a calamity to the family and retards his own recovery.

The sections (8-14) which provide for the administration of medical benefit will prove of special interest to medical men.

Trusting that you will use your influence to bring this matter to the attention of the medical profession. I am,

Very truly yours,

JOHN B. ANDREWS,

Secretary.

We are heartily in sympathy with the general principles underlying the effort to obtain insurance of this kind but there are certain details which ought to be carefully considered in advance. For various reasons, we are inclined to deprecate special legislation in favor of manual laborers, particularly when the amount of wages is not considered. Without regard to the matter at issue, we consider it undesirable in this country to do anything that tends to create a fixed laboring class, that is to say, that tends to limit the meaning of the words work and labor and to establish degrees of dignity in performing useful work or that tends to stratify society. With particular reference to the present movement, we feel that, on the one hand, manual labor in the broad sense is just as intelligent and thrifty as clerical; on the other hand that clerical or professional or any other kind of work, well performed and meeting a genuine need of the community, is equally deserving of assistance if assistance is required at all. Moreover, the distinction between manual and non-manual labor is very difficult to define, except according to arbitrary standards. For example, there are surgeons, dentists and medical specialists who not only use more actual manual skill but more muscle than many who would be classified as manual laborers but whose hand work is mainly confined to the manipulation of levers, and whose skill is essentially mental.

We appreciate the great practical difficulties of applying to home and "casual" employes, the principle of responsibility by the employer, as in the case of large corporations or firms employing large numbers of employes quite steadily. An attempt in this direction would undoubtedly be to the disadvantage of the employe, since it would impose almost prohibitive responsibility on the prospective employer. Yet it is the domestic servant and the transient worker of either sex that needs the protection of insurance, even more than the trained mechanic, more regularly employed.

We cannot without further enlightenment, appreciate how

the kind of work that a person does, has any bearing on his need of insurance against disaster or, to put the matter in the opposite way, how the community as a whole, needs to be protected against the loss of a worker and against the pauperization of an individual or family, for certain kinds of workers and not for others. We appreciate very clearly the principles that the community does owe to the fullest degree practicable, protection against disease and accident to all its members; and that it owes to those who would be financially crippled by disease and accident, not only care and support, but care and support on a self-respecting basis and in such a way that the integrity of the home and family shall not be sacrificed. In other words, the community should provide, not merely the hospital, the poor house and the asylum, but some sort of insurance that should enable the family to continue as a unit and on approximately the same scale of living which its chief wage earner has already established, as what the world owes him. We can not conceive of this debt of the community to the individual, as being increased because the particular individual does any particular kind of work and is usually paid in any particular way, nor diminished because he does some other kind of work or gets his pay according to some other method. Obviously a point is reached at which the individual does not absolutely require insurance or may be safely allowed to suffer loss if he has not had the foresight to secure it of his own initiative, and at which insurance at the average rate of income is not advisable as a compulsory matter, especially if the income does not depend directly on the health and strength of the nominal wage earner. Off hand, an income of \$1200 a year—or more for laborers technically classed as manual—seems rather a high limit for compulsory insurance on the combined basis of deduction from earnings, and assessment on the employer and the state. On the other hand, if the state can insure generally, at a lower rate and more safely than a private company, there is an obvious advantage in making this provision one of the functions of government and, if undertaken by the state at all, it should be compulsory—or rather automatic—and should apply to all who could conceivably be reduced to pauperism by a failure of earning capacity.

TOPICS OF PUBLIC INTEREST.

Rank for Dental Surgeons. Senator Pomerene has introduced an amendment to the army bill, providing that dental surgeons shall have the rank, pay, etc., of first lieutenant

for the first five years of service, instead of 10, of captain for the next ten years instead of until 25 years, and thereafter, the rank of major. At present, dental surgeons serve under contract for three years and, thereafter, on passing an examination, are permanently commissioned as first lieutenant but ranking below all other first lieutenants. The survival of an old prejudice against dentistry, and indeed against medical specialism in general, is the only excuse for such failure of recognition of the value and dignity of professional service.

Batavia Hospital. 26 physicians of the Medical Society of the County of Genesee have petitioned the directors for the removal of the superintendent and assistant.

Associate Members of the Cleveland Academy of Medicine. These include 4 dentists, 7 pharmacists, 18 veterinarians, and 3 miscellaneous—medical teachers not having the M. D. degree. Will our western N. Y. academies follow this hint?

Tuberculosis Hospital Not a Nuisance. The City of Northfield, N. J., attempted to enjoin Atlantic Co. from erecting a tuberculosis hospital. The ruling of the N. J. Court of Chancery, 95 Atl. 745 was based on the lack of evidence that the hospital would be a source of danger and on the general principle that mere interference with market value of adjoining property was not sufficient.

Ambulances for Syracuse. Mr. Alexander T. Brown has presented an ambulance to the Hospital of the Good Shepherd and St. Joseph's and the Crouse-Irving Hospital have each bought one.

Onondaga Co. Tuberculosis Sanitarium. Considerable fault is found with the construction, in spite of the high cost of \$600,000. \$5,000 is to be spent for linoleum, on account of the poor condition of the floors. (Crouse-Irving Bulletin).

Proportion of Able Bodied Men. 40% of about 800 applicants for positions as firemen in Buffalo, have passed the physical tests. In several instances throughout the country, 50% has been found in candidates for the national guard. These figures are significant from the standpoint of preparedness.

Warning. We are advised that a very clever swindle is being worked by a young man calling on physicians in vari-

ous sections of the country. He is fraudulently soliciting orders and collecting money for subscriptions to medical journals and for medical books published by various firms. He usually represents himself as a student, working his way through college and trying to get a number of votes to help him win a certain contest. He sometimes uses the names of L. D. Grant, H. E. Peters, R. A. Douglas and F. C. Schneider and he usually gives a receipt bearing the heading of some society or Association, such as United Students Aid Society; the Alumni Educational League; the American Association of Education, etc.

The description given of this swindler is—young man of the Jewish type, rather slender, with very dark hair combed straight back and shows his teeth plainly when talking.

The whole scheme is a fraud. The Societies mentioned do not exist. The idea is to collect money by offering special discounts and prices on medical books and journals and skip with the money.

This young man does not represent W. B. Saunders Company, whose name he frequently uses. He is a fraudulent subscription agent and physicians, generally, should be on the lookout for him.

Health Insurance. In response to public interest in health insurance the Massachusetts Legislature has created a commission to study social insurance with special reference to sickness. The state department of health and the bureau of statistics are directed to co-operate with the commission of nine members which will prepare a report and recommend the form of legislation to be introduced in January, 1917. California has a similar state commission already at work on this problem which is attracting wide attention since the introduction this year of bills for health insurance in Massachusetts, New York and New Jersey. Proponents of this legislation believe it will bring a movement for "health first" comparable to the safety first campaign which followed workmen's compensation for accidents.

War and Meteorology. Most scientific authorities deny the effect of explosives on rain fall, claiming in particular that it rains on the Fourth of July and on the days of battles with just about the same average frequency as on any other day, and that rain-making bombs have produced rain only by coincidence. We are quite disposed to admit that a few fire crackers or even a few hundred small arms can have no appreciable influence on precipitation. But it is not a priori absurd that the tremendous explosions of

modern artillery, almost continuously for considerable periods and for distances of many miles, may have an appreciable action. In many instances, not only vibrations but air currents of considerable magnitude are brought to bear pretty directly on the lower cloud level. We trust that the matter will be studied from the standpoint of actual fact, not of credulity or incredulity. It should be remembered that statistics of average or aggregate precipitation do not entirely settle the question. The violence of precipitation at a given time, the accompaniment of electric disturbances, the frequency of rains by the week or month, are quite as important, indeed more important in their effect on human industry and enjoyment.

Moss as a Substitute for Cotton. The Muench. Med. Woch. states that, owing to the shortage of cotton—which is needed for explosives more acutely than for alleviating the results of explosives—sphagnum (peat moss or turf) which is abundant in German moors, is largely used as a dressing. This absorbs 10 times its weight of water, cotton only 6 times. It will stand half an hour's sterilization by heat without damage. It may be directly applied and has the advantage over cotton that it does not stick in dry discharges as does cotton. It may also be used inclosed in gauze, as packing. Apparently it is to some degree directly haemostatic, as well as a better absorbent than cotton. The plant, while originally growing from a stalk seems to absorb its nourishment mainly through the leaves, the stalk soon dying. The cells of the leaves are approximately, alternately chlorophyl-containing and chlorophyl-free, the latter cells being larger and capable of absorbing either water or air as required in the growth of the plant while, in the surgical use of the moss, these chlorophyl-free cells, determine its remarkable absorptive capacity.

The Picnic of the Buffalo Health Dept. was held at Crystal Beach, June 17.

Harrison Law Ruling. The U. S. Supreme Court, Justices Hughes and Pitney dissenting, has ruled that the provision making it unlawful for anyone not registered to have opium in his possession applies only to dealers and not to users. This ruling, of course, renders the law ineffective to a large degree but is based on the principle that "it would not do to strain the powers of the U. S. almost if not quite to the breaking point." It will be remembered that, at the outset, we pointed out the ultimate danger of legislation on matters of morals and ethics and the impropriety of exceeding the

constitutional powers of the central government by the quibble of introducing a scheme of taxation, itself troublesome and unwarranted. Already, in Buffalo, Detroit and probably other cities, the local authorities have been handicapped in prosecuting cases by this new ruling.

Radium Cure of Cancer. A case of facial cancer in a man 102 years old is reported from Kane, Pa., one eye being lost.

The Batavia Woman's Hospital Assn. has voted to install a new heating system, with a separate boiler building.

Columbus Hospital of Buffalo is being enlarged by a brick addition 2 stories high, with basement, increasing the capacity by 30 beds, at a cost of \$25,000. \$10,000 is also being expended on other improvements, including X-ray laboratory, laundry, enlargement of operating room, etc.

Immigration Statistics. For the year ending June 30, 1915, the net increase of immigration over emigration was 50,070, the smallest for a great many years. For the first 10 months of the fiscal year 1915-16, the immigration was 291,527 and the emigration 212,478, a net increase of 79,049. Apparently the breathing spell due to the War, will not last long.

Health Insurance. The U. S. Public Health Service, in advocating a governmental system, states that 2.5% of employes in American industries are constantly incapacitated and that the average worker loses 9 days a year from sickness.

The N. Y. State Dept. of Health has received an appropriation of \$65,000 for the erection of a new laboratory to take the place of the present quarters in an old stable that has been condemned as unsanitary and that has not afforded even sufficient room for convenient arrangement of time.

The J. N. Adam Memorial Hospital at Perrysburg, will be increased by 30 beds, a temporary shack for winter and more tents for summer. The directors and the councilmen of Buffalo inspected the hospital June 10.

Warning. The State Commissioner of Health has issued a letter to the effect that facilities are now acquired for enforcing the law regarding the reporting of contagious diseases, births, etc. It should be remembered that practically all infectious diseases must be reported, including trachoma,

tuberculosis, puerperal septicaemia; that previous attendance by another physician or the fact that one is a consultant does not necessarily relieve from responsibility. It is a safe rule to telephone the local authorities in the case of any unusual condition found and to ask one's self whether the circumstances are such that the health officials would be interested.

The Open Air Camp for Tuberculous Patients has been opened for the season, under the auspices of the Buffalo Association for the Relief and Control of Tuberculosis. Applications should be made at the Dispensary, 175 E. Swan St., Seneca 1270-W.

Anthrax. A case was reported to the Buffalo Health Dept. in May, in the person of a street car conductor, supposed to have been infected from a glove. Recovery ensued.

Infant Mortality. The N. Y. Milk Committee (105 E. 22, N. Y.) have prepared a table showing the mortality of infants under one year for 144 cities of the U. S. The averages of 1906-10 for about a third of these cities, indicate that the supposedly "normal" mortality of infants was about 125 per 1000 born. The lowest mortality for a large city was 91 for Minneapolis; Baltimore had a mortality of 228 and Troy, the enormous one of 267. The only small mortality rate reported was from Brookline: 59.3: 1000. Here, of course, the total population was: 27,792, the births and infantile deaths very low in actual numbers, since this is probably the richest incorporated place in the world, proportionately to population, and the one that has the smallest number of families of small means. In fact, about the only poor persons in it are domestic servants. While there have been and will be considerable fluctuations in infantile mortality since 1910, and variations not entirely explained by kind of population, climate, etc., it is noteworthy that for 1915, there was not a single place that reached the 200:1000 limit; only 8 that passed 150 and all of these comparatively small places, Nashville (population 110,000) being the largest, while all of the 8 had unfavorable conditions, such as a large industrial population in mills, etc., or excess of colored population. 23 of 50 cities above 100,000 in population, exceeded 100:1000 infantile mortality and, of the 144 places listed, only 50 exceeded this rate. An approximate average by places, shows that 75:1000 is a rate already attained. Seattle (237,000 inhabitants) had a rate of 53.1 and Omaha (124,000) a rate of 47.1, these being less than half of the average rates for the years 1906-10. Hence the commission issues the slogan that

“NO COMMUNITY WITH AN INFANT MORTALITY OF OVER 50 PER 1000 BIRTHS CAN CLAIM THAT ITS BABIES ARE GETTING A SQUARE DEAL.”

Brooks Memorial Hospital graduated 10 nurses, May 24. Dr. Thew Wright of Buffalo delivered an address.

Adenoids at Perry. Dr. L. W. Jones of Rochester was engaged to operate on school children, May 29, rooms being fitted up for operating and hospital purposes.

Telephone Rates in Detroit. A. Business: 150 calls a month, \$4.50, extra messages 2 cents; party lines, 50 calls, \$2.50; unlimited service, single line, \$6; unlimited service, 2-party line, \$5. B. Residence: single line, \$3.50; 2-party line, \$3; 4-party line, \$2. The Bell Co. has no competitor and is attempting to raise rates.

Thymol From Horse Mint. Fresh, entire herbs, Putnam and Volusia Cos., Fla. 1907, yielded 1-2 parts per 100 of essential oil, the oil consisting of 56-62% of phenols which were almost entirely thymol. Wild plants consist mainly of stems and when dry, yield practically no oil. In 1915, by cultivation, the yield of oil had been increased to about 4:1000 and the oil yielded 74% of phenols. Directions are given for cultivation, distillation, etc., and the estimate is made that \$16 per acre may be obtained. S. C. Hood, Bull. 372, U. S. Dept. of Agriculture.

Army Medical Corps Examinations will be held at points to be announced July 17 and Aug. 14. Over 100 vacancies are to be filled. Citizens, 22-30 years old, with a medical degree and having had a year's interne service are eligible. Apply to the Surgeon General, U. S. Army, Washington, D. C.

Office Building for Buffalo Physicians. It is proposed to erect a real medical office building for Buffalo, on a scale with similar buildings in Denver, Chicago and other cities. Provision will be made for housing the Academy of Medicine or such other society as may be inclined to accept the offer and to provide a kitchen, banquet hall, etc., for social meetings. Parking space for automobiles, abundance of light that cannot be interfered with by any subsequent building and accessibility will be considered in selecting a site. We understand that capital will be raised outside the profession, as a business investment, to secure a return from rentals,

though it is probable that physicians may also invest if they so desire. We would be pleased to hear from our readers as to how they regard this proposition.

Saratoga Development. Gov. Whitman, in his address to the State Society, estimated that 25,000 or more Americans have annually visited European spas, spending ten millions a year, beside passage money. The Reservation has been placed under the control of the Conservation Commission and the State will appropriate funds for the development of Saratoga as the profession by advising patients to seek relief in their own country, justifies such expense.

The Preparedness Parade for Buffalo, June 24, included 48,100 men and women, exclusive of bands and guardsmen. 2600 men paraded with military organizations and 1000 as bands, aids, etc., making a total of 51,700, well above 10% estimate of militia in the total population. 320 physicians marched, notwithstanding the fact that a considerable number were already on duty with the national guard or out of town. Unfortunately, 109 cases of drunkenness ascribed to patriotism were disposed of in the courts the next day. One point should be clearly kept in mind, especially by physicians, for their own guidance and that of others whom they may be called to advise. At present, a comparatively small number of men are needed and it is scarcely likely that a war with Mexico will require more than a million men—1% of the total population or 10% of the available military strength. This number can easily be raised without withdrawing from civil life those who are required for the maintenance of the various industrial and other activities of the community or those whose absence and, still more, whose death or permanent disability will cost the country more than their value as military units. True patriotism should take these facts into account and should be based on a wise consideration of actual personal conditions, rather than on emotional sacrifice. We trust, however, that as a general preparedness for more remote danger, every unit of the National Guard, mobilized for service, may be replaced by some sort of a Home Guard, of full strength and promptly drilled to the fullest efficiency possible under peace conditions for the National Guard.

The International Joint Commission to consider the pollution of boundary waters between the U. S. and Canada, met in Buffalo in June. Buffalo will present, within six months, a plan for sewage disposal and also for water filtration. It

is estimated that about 3 million dollars will be required to carry out an ideal plan. This will be a considerable strain upon the finances of the city, corresponding to about a quarter of the total expense of city government for a year.

Dental Preparedness. A national league of dentists has been instituted by Drs. J. Wright Beach, Herbert A. Pullen and M. Button Eschelman of Buffalo, the enrollment being already over 1000. The objects are to give free dental services to recruits, so as to bring them into perfect physical condition so far as the teeth are concerned, and to form local dental units for the treatment of wounds of the jaws which have proved far more common in the present war than in any other.

Automobile Registration. Up to June 10, the N. Y. state licenses number 247,397, an increase of 59,972 over the period of 1915. 16,698 motorcycle licenses have been issued.

Anti-Typhoid Vaccination will be applied to all N. Y. State National Guard soldiers. Enough for 4000 persons was issued by the State Health Dept. June 21, many have already been immunized and as the Dept. has foreseen the need of sufficient vaccine, this element of preparedness will have been carried out completely. The Guard of other states has been vaccinated to a large degree.

SOCIETY MEETINGS

Brief reports and announcements of meetings of societies of Western New York, and those of general scope, are requested from Secretaries. Copy should be on hand the fifteenth of the month. Full transactions will be published at cost of composition.

DOCTOR: Is your Society properly represented here? If not, please bring our standing announcement to the attention of the members.

The American Medical Editors' Association will meet at the McAlpine Hotel, New York, October 25th and 26th.

The Local Committee comprises: Dr. Thomas L. Stedman, (Editor, Med'l Record) Chairman; Dr. R. H. Sayre, (New York Medical Journal); Dr. Brooks H. Wells, (Editor, Amer. Jr'l of Obstetrics); Dr. Frank C. Lewis, (Internat'l Jr'l of Surgery); Dr. Ira S. Wile, (American Medicine).

The officers of the Association for 1915 and 1916 are as follows: Dr. Edward C. Register, President, (Charlotte

Med'l Journal, Charlotte, N. C.); Dr. W. A. Jones, 1st Vice-President, (Journal Lancet, Minneapolis, Minn.); Dr. G. M. Piersol, 2nd Vice-President, (Amer. Jr'l Med'l Sciences, Philadelphia, Pa.); Dr. J. McDonald, Jr., Secretary and Treasurer, (American Journal of Surgery, New York.)

Executive Committee: Dr. C. F. Taylor, (Medical World, Philadelphia, Pa.); Dr. John C. MacEvitt, (N. Y. State Jr'l of Medicine, New York); Dr. A. S. Burdick, (Amer. Jr'l of Clin. Med., Chicago, Ill.); Dr. Joseph MacDonald, Jr., (Amer. Jr'l of Surgery, New York).

The meeting on October 25th and 26th, will be devoted exclusively to problems of strictly journalistic nature, which will be of importance and interest to every editor and publisher of a medical journal. Among the papers to be presented are the following:

"Editorial Control"—"The Editor's Prerogative in Editing Original Articles"—"Book Reviews in Medical Journal"—"Problems of the Subscription Department"—"The Relationship Between Medical Journals of the Day"—"The Up-Lift in Medical Journalism"—"The Influence of the Medical Press and Profession in Public Affairs"—"The Rights of an Author in the Disposition of his Contribution," etc.

The Alumni Association of the Medical Dept. of the University of Buffalo will publish its proceedings in the August issue.

The A. M. A. Meeting at Detroit, was one of the largest ever held, the registration of physicians being nearly 4500. The maximum attendance was at Chicago, 1908, 7000 and the next at Boston, 1906, 6000. Allowing for obvious differences in the potential attendance from the city of meeting and the immediate vicinity, the Detroit meeting may be considered the most successful to date. The arrangements were thoroughly made and comfort and convenience were attained to a higher degree than is possible for most meeting places outside of Atlantic City. The hospitality was liberal and cordial. One of the most practical features was the volunteering of automobiles by physicians and others for the use of guests. A conspicuous A. M. A. monogram on the wind shield indicated that the car was at the service of any guest who hailed it. Messrs. Parke Davis & Co. kept an automobile service running between Headquarters and their plant, conducting visitors through the scientific laboratories and other parts of their manufactory and dispensed refreshments in a marquee. The Ford and other automobile plants also attract-

ed many guests. The newspapers gently jested the medical profession on its lack of attention to ventilation of its meeting places and on the use of high-heeled shoes by the great majority of women physicians and doctors' wives. As the former criticism was beyond the control of either professional hosts or guests and as the latter was considered *ultra vires*, so far as medical men are concerned, some good may be expected from them, especially as the press was most courteous in its news service. The next meeting of the A. M. A. will be held in New York, under the presidency of Dr. Wm. H. Mayo of Rochester, Minn., Surgeon General Rupert Blue of the U. S. Public Health Service then retiring.

The Western N. Y. Veterinary Medical Assn. held its annual meeting in Buffalo in June, Dr. E. L. Volgenau of Buffalo, Pres.; Dr. J. L. Wilder of Akron, Vice-Pres.; Dr. F. F. Fehr of Buffalo, Sec.-Treas.

The Dental Society of New York State held its annual meeting at Albany in May. Officers were elected as follows: Dr. Robert Murray of Buffalo, Pres.; Dr. Amos C. Rich of Saratoga Springs, V. P.; Dr. Geo. H. Butler of Syracuse, Treas.; Dr. A. P. Burkhart of Auburn, Sec.; Dr. I. L. M. Waugh of N. Y. (formerly of Buffalo) Corresponding Sec.

The Elmira Academy of Medicine Held a Regular Meeting June 7. Dr. Palmer H. Lyon of Valois, gave a paper on Rational Methods in Treatment of Neurasthenia; Dr. Anna Stuart of Elmira, on Infantile Scurvy.

The Buffalo Academy of Medicine has held the following meetings since our last report: Section of Obstetrics and Gynaecology, May 17, Extra-uterine Pregnancy Aetiology, Dr. C. A. Bentz; Diagnosis and Treatment, Dr. Earl P. Lothrop.

Section of Pathology, May 24, Preventable Deafness, Dr. Clayton M. Brown; Mastoiditis, Diagnosis and Treatment, Dr. John F. Fairbairn.

Annual Meeting and Election of Academy, June 14.

The Officers for the following year are as follows: President, Dr. Lawrence Hendee; Secretary, Dr. Herbert A. Smith; Treasurer, Dr. Bernard F. Schreiner; Trustee, Dr. Wm. Ward Plummer. The Chairmen and Secretaries of Sections: Surgery, Dr. F. M. O'Gorman and Dr. James Cross; Medicine, Dr. E. A. Sharp and Dr. Harry Mead; Obstetrics,

Dr. Irving M. Potter and Herman K. De Groat; Pathology, Dr. Wm. F. Jacobs and Dr. Wm. G. Bissell.

Medical Society, County of Erie. The regular meeting of this Society was held at the University of Buffalo, No. 24 High Street, on June 19th, 1916, at 8:45 p. m., Dr. Franklin W. Barrows, President, presiding.

The Secretary read the minutes of the last regular meeting held April 17th, 1916, also of the joint meeting of the Council and the Delegates to the State Society held on May 11th, 1916, also the minutes of the Council held June 6th, 1916, all of which were approved as read.

In the absence of Dr. Jacobs, Chairman of the Committee on Membership, Dr. Jesse N. Roe of the Membership Committee presented the names of the following applicants and on behalf of the Committee recommended their election. These names had been previously presented to and favorably acted upon by the Council.

Dr. Leo. A. Bussman, 690 Broadway, Buffalo, a graduate of the University of Buffalo of 1913.

Dr. Francis W. Leopold, 36 Woltz Avenue, a graduate of the University of Buffalo, 1914.

Reinstatement of Dr. George Marshall Lewis, 753 Amherst Street, Buffalo.

Reinstatement of Dr. Sydney A. Dunham, 1392 Amherst Street, Buffalo.

Reinstatement of Dr. Hugh J. McGee, 820 Elk Street, Buffalo.

Reinstatement of Dr. William Hoddick, 68 Barker Street.

Reinstatement of Dr. Clarence A. Tyler, Alden, N. Y.

Each one of these applicants were separately balloted upon and elected and reinstated.

Treasurer Lytle stated that at the last meeting of the Society he was excused by vote of those present from reading the names of members who were in arrears with their dues until a future meeting of the Society and asked the pleasure of the meeting.

On motion of Dr. Bonnar the reading of the names of members in arrears were suspended.

Dr. Lytle then read the resignation of Dr. Leonard Reu, which he had just received and moved that it be referred to the Committee on Membership. Carried.

Dr. Bonnar made a brief report of the Board of Censors giving an account of the activities of the Board since last meeting of the Society, and what had been done and accomplished with offenders of the medical practice law.

This concluded the business session and the scientific pro-

gram consisted of a clinic in which a number of patients were presented by Dr. George F. Cott. The clinical history and condition of each patient was carefully gone over by Dr. Cott and proved to be very interesting to the Society. Following the clinic Dr. Cott gave a lantern slide demonstration.

Dr. James A. Gibson presented a very interesting series of lantern slides which showed the Pituitary Body, showing its normal condition and also the many deviations from the normal as well as the results following such abnormalities.

At the conclusion of these demonstrations the subject matter presented was discussed by the Society.

Dr. C. R. Borzilleri presented some pathological specimens and gave the history of the case.

The Society then adjourned.

PERSONAL.

Announcement of removal, travel, and other matters of interest are requested. Please report errors in the listing of any physician in the State and other directories, that we may co-operate with the State Society in securing a correct list.

Dr. N. Victoria Chappell and Miss E. Mae Chappell of Buffalo left June 8 for a trip to Colorado.

Dr. David E. Wheeler, formerly of Buffalo, has recently been honorably retired from the French Army. It will be remembered that he served as surgeon in the Foreign Legion and was wounded in the leg, while bringing in the wounded under fire. He was specially mentioned for heroism on the field of battle, in the day's despatches.

Dr. Alfred S. Burdick of Chicago, of the editorial staff of The American Journal of Clinical Medicine, has been appointed Assistant General Manager of the Abbott Laboratories.

Dr. J. C. Partridge of North Cohocton, has moved to Avoca.

Dr. Frank Trippe, University of Buffalo, 1916, was tendered a reception at the Club of St. Anthony's Beneficial Society, in Fredonia, shortly after his graduation.

John Opie McCall, D. D. S., announces the removal of his

offices to 437 Franklin Street, Buffalo. Practice limited to Oral Prophylaxis, Periodontia and Consultation on Mouth Infections.

Dr. John R. Butsch of Buffalo, has been appointed to the staff of the Mayo Clinic at Rochester, Minn. In his absence, his laboratory will be continued at 519 Franklin Street, under the direction of Dr. R. R. Donk.

Dr. Wm. A. Curtin of Syracuse has purchased the residence of the late Henry L. Elsner, adjoining his own property of Fayette Park.

Robert Murray, D. D. S., has been elected President of the Dental Society of N. Y. State.

Dr. F. M. Evans has been appointed Post Master of Fredonia.

Dr. John H. Evans of Buffalo has moved to 519 Franklin Street.

Dr. Francis J. Lennon of Buffalo leaves July 1 to spend some weeks at his parents' summer home at Rockaway Beach, L. I.

Dr. Douglas P. Arnold of Buffalo has moved to 758 Elmwood Avenue.

Dr. Franklin W. Barrows has been appointed Acting Chief of the Bureau of Child Hygiene of Buffalo, vice Dr. Arthur C. Schaefer, who has been called into service with the 74th Regiment of the National Guard.

Dr. Herman D. Andrews of Buffalo announces the removal of his office to Suite 15, 494 Franklin Street, Hours 9-1.

OBITUARY

Readers are requested to report promptly the death of all physicians in Western New York, or former residents of this region, or graduates of any medical school in Western New York, and to notify the families of the deceased of our desire to publish adequate Obituary notices.

Dr. Albert Curtis Purvil (not listed in Polk nor State Directory), died at his home in Brooklyn, May 30 of sleeping

sickness, contracted from a tsetse bite in the Belgian Congo, several years ago.

Dr. Sarah Howe Morris died at Santa Monica, Calif. in May, aged 84. It is said that she was the first woman to be graduated in medicine in the U. S. She was, for many years a practitioner of Buffalo, held in the highest esteem. She was an active member of the Homoeopathic County Society, the Women's Educational and Industrial Union which has recently turned over its property to the Arts Dept. of the University of Buffalo; and of the W. C. T. U. She removed from Buffalo about ten years ago.

Mrs. Jennie E. Barker died in Buffalo, June 10. She was the widow of Dr. Arthur M. Baker, formerly a well known physician of Buffalo, who died about 1887.

Dr. Wm. F. Beck, Buffalo 1893, died in Buffalo June 2, aged 59. With the exception of a few years soon after his graduation, he was a practitioner of that city.

Dr. John Huntington Van Kleeck, Buffalo 1873, died at his home in Brooklyn, of pneumonia, May 7.

Dr. Chas. L. Stiles, Geneva 1865, died April 22. He had been a practitioner of Owego since his graduation and was prominent in medical organizations being an honorary member of the Elmira Academy of Medicine.

Dr. Amos P. Dodge, University of Maryland, 1874, died at his home in Oneida, N. Y., May 3, aged 63. He settled in Oneida Castle in 1876 and has resided in that vicinity ever since.

Dr. R. J. Howe, (not listed in Polk nor State Directory), died in Watkins, N. Y., Mch. 28.

Dr. Ida C. Bender, Buffalo 1890, died at her home in Buffalo, June 11. She was the eldest child of the late Philip Henry Bender, proprietor of the Buffalo Telegraph, which was later merged with the Freie Presse. She was graduated with the highest honors at the Buffalo Normal School, winning the Jesse Ketchum gold medal. Her life work was that of a teacher, of languages at the Normal, in grade work in the public schools, and as Principal of the Normal School of Practice. She was one of quite a number of Buffalo teachers

who, about 1890, entered the medical department of the University of Buffalo, some afterward engaging in practice, others taking the course for its educational value and to be able to add to their value as teachers, a thorough knowledge of hygiene and the ability to detect physical abnormalities in pupils, and to give advice as to the removal of these educational handicaps. This was, indeed, at least locally, the beginning of the system of medical inspection of school children. During her course of study in medicine, Miss Bender assumed the teaching of physiology and other scientific branches in the Buffalo Central (now Hutchinson) High School, succeeding the late Charles Linden. Shortly after her graduation with honors at the University of Buffalo, Dr. Bender was appointed Supervisor of the Primary Grades of the Buffalo Public Schools, a position created at the time of the reconstruction and modernization of the department by the Superintendent, Henry P. Emerson. In this work, Dr. Bender continued for a little over a quarter of a century, until her death, although she had been incapacitated for nearly a year. She was largely instrumental in the elevation of the profession of teaching, in many ways, by organization, insistence on post graduate study of theoretic and practical kinds along lines well developed by the medical profession, by forwarding the plan of pensions and in many other ways. Although thus nominally an executive officer, Dr. Bender always remained a teacher. Many who were in school after her promotion from class work, remember her from her visits to the schools in the capacity of Supervisor and recall the actual information and insight into learning which they received from these brief periods of instruction. Intellectually and socially, she was a woman of the highest gifts, was widely known and every casual acquaintance became her friend.

ABSTRACTS.

Have you ever felt that this department of the BUFFALO MEDICAL JOURNAL was lacking in abstracts of your specialty, or that such as were published lacked the expert judgement which you yourself could have exercised in selection and preparation? If not, you are more charitable than the editor has been to himself. If so, will you assist in abstracting from a few journals, and thus make this department more representative and more valuable? Incidentally, there are few forms of study more helpful to the worker than this.

Erythraemia. G. H. Clark, Glasgow Med. Jour., Edit. in Polyclinic of London, April. Poly(erythro)cythaemia may

be due to concentration of blood, increased function of bone marrow as after a haemorrhage, stasis of chronic heart disease and other conditions. Erythraemia was described by Vasquez in 1892 as polycythaemia with cyanosis and may be defined as spenomegalic polycythaemia. Clark's case occurred in a sailor aged 51. Family and personal history negative except for several gastric disturbances several years ago, calling for morphine. He was vaccinated before a trip to Rio de Janeiro and on the trip, red and purple discoloration of the face and neck, less marked on hands, back and sides, was observed. The only subjective symptoms were slight weakness and abdominal fullness. The blood count ran 10-12 millions without casts, and the spleen was enlarged. The urine contained considerable albumin. In May, 1915, swelling of feet and ankles, fullness of upper abdomen, increase of color and thinning of face and arms were observed and the liver was also found to be very large. Blood, July 25, 1915: reds, 10,972,350; whites, 10,230; Hb. 132%; color index 0.605; differential count, Poly. 86.5%, Mononuclears 5.5%, Large lymphocytes 1.75%, Small lymphocytes 2%, Eosinophiles 2.75%, Transitionals 0.25%, Mast cells 1.25%. No poikilocytosis. One normoblast seen. S. G. 1071.83 (normal 1057-1066). By Dreyer's method, the volume of blood was calculated to be 10,118 C.C., about double the normal. Whereas the plasma and corpuscles are normally about equal in volume, here the corpuscles made up 76% of the total. Moisture was calculated at 66%, organic matter and ash at 33.94%. Ash analysis ferric oxid 0.112% (about double the normal); calcium oxid 0.0113% (thrice the normal); magnesium oxid trace; phosphorus pentoxid 0.0126 (fifth of normal); potassium and sodium chlorid and sulphur trioxid 0/854%. After two bleedings, considerable amelioration occurred and some reduction of red cells. References are made to literature but the pathogeny is not understood. Jung's case, quite similar, dying in Jan. 1913, is cited. Here, the reds were 9,000,000 and the whites 30,000, declining to 2,500,000 and 19,000 respectively shortly before death.

Schick Test for Diphtheria Susceptibility. Don M. Griswold, Detroit, Jour. of Lab. & Clin. Med., Mich. Skin tests are von Pirquet's (first in point of time) for tuberculosis, and analogous tests as to the presence or absence of gonorrhoea, syphilis, and typhoid. The von Schick test is analogous but determines, not the presence of the disease but of susceptibility. Romer observed that persons having less than 1/30 unit of diphtheria antitoxin per C.C. of blood serum were susceptible to diphtheria and that nurses, internes and

doctors (sic) frequently exposed and not contracting the disease, had more than this amount. Schick developed the technic of his test as follows: 1/50 M.L.D. diphtheria toxin, diluted to 1/10 C.C. injected into the skin is or is not neutralized according as the antitoxin present in the blood exceeds or falls below 1/30 unit of antitoxin. A chart is presented showing quite an accurate correspondence between the susceptibility as determined theoretically by the Schick test and the actual proportionate incidence of the disease. At the end of the first year, about 43% of Schick tests are positive, that is show susceptibility. At the end of the third year about 53% are positive. At the end of the 7th year, about 42%, at the end of the 9th, 32%, at the end of the 11th, 22%; at the end of the 13th, 12%. The proportionate distribution of diphtheria after the first two years, runs approximately 10% below the curve of susceptibility by the Schick test. (It should be noted that, for purposes of comparison, one should take not the percentage of incidence by age of actual diphtheria series, but the percentage of persons of a given age that contract the disease. In such a comparison, one would still expect that the susceptibility by the Schick test would run far above the incidence as, obviously, only a variable number of susceptible persons actually contract any disease, especially when it does not occur as an epidemic).

Unusual Causes of Plumbism. Hall, *Lancet*, Oct. 2, 1915, mentions a case due to habitual use of a soft drink which was conducted from the cellar through a lead pipe and yielded 1 grain of lead per gallon. Another case was due to the habit of carrying shot in the vest pocket, for an air gun used for cats. Fine lead dust was present in the pocket. (Note. This is appropriated from the *Boston Med. & Surg. Jour.* We did not suppose that this journal would thus translate the word waistcoat and it seems incredible that the word vest was used in the original. Also, what is the English of soft drink?)

Cause of Death in Intestinal Obstruction. Frederick Hagler and Major G. Seelig in a review of 39 articles from periodic literature, *Interstate Med. Jour.* conclude that the inanition theory is not correct, death occurring too soon, although it must be admitted that death occurs earlier from high than from low obstruction. In certain cases, with much vomiting, death may be due to dehydration. The nervous theory is plausible but the tachycardia, low blood pressure, dilatation of splanchnic vessels and collapse do not differ materially

from the phenomena of approaching death in various other conditions, including toxaemias in general. Bacterial infection is denied, a priori, by the more rapid death in high than in low obstruction and by the fact that experimental exclusion of an intestinal loop is not incompatible with indefinite prolongation of life. Intoxication, by bacterial and by metabolism processes is discussed at great length. There is much difference of opinion and some apparent contradictions of evidence. Probably death is due to no one cause.

Endocardiac Injection of Strophanthin. Ruediger, Muench. Med. Woch., Jan. 25, reports the case of an elderly woman with cyanosis, oedema and double hydrothorax. The patient was apparently moribund but was revived and made a relative recovery. He has practiced this method several times since 1909 and advises injection into the base of the right ventricle.

Effects of Drying on Viability of Germs. Joseph M. Shapiro, Denver, Col. Med., May. Cholera 24 hrs., 16 days for 5-day-old culture, 42 days in moist chamber, 140 days after addition of bouillon (Ficker). 2 minutes on slide (Teague). Few hours (Buckley).

Typhoid. 4 and 9 days (Ficker). 1-5 days dried in sand, 4 days in faeces, 50 days on linen, 90 days on wool (Germano). 24 hrs. on Petri dishes (Kirstein). 36 hrs. on slides (Teague). 12 days on glass, 91 days on plaster (Buckley).

Diphtheria. 14 days in dessicator (Ficker). 30 days in dried sand, 50 days in moist sand, 4 months on membrane (Germano). 24-48 hrs. on Petri dishes (Kirstein). 60 hrs. (Teague). 6 days on paper, 41 days on lime wood (Buckley).

Colon Bacillus. 99% gone in 24 hrs. when dried in sand (Winslow and Abrahamson). 64 days on wood, 80 days on lime wood (Buckley).

B. Prodigiosus. 18 hrs. spraying on Petri dishes, 7 days spraying on silk, 68 days, washing silk in bacterial emulsion (Kirstein). 10 hrs. (Teague).

Staphylococcus. 8-10 days on Petri dishes (Kirstein). days (Teague). 53 days on glass, 140 days on plaster (Buckley).

Shapiro, after presenting these memoranda, described his experiments with diphtheria patients. He tested 6 swabs from a throat 5 weeks after the onset and 4 days after a positive diphtheria culture. No diphtheria bacilli were found but staphylococci were present. These were inoculated on to Petri dishes. Those exposed to indirect sunlight were all killed in less than 24 hours. Those in the shade died in 2-4

days. Two cases, seen some time after administration of antitoxin, yielded streptococci. Inoculated as before, these survived 2-4 days.

Employing a known culture of diphtheria bacilli, cotton swabs, glass rods and sticks of wood were inoculated and placed in glass containers with slightly lifted covers. Those on wood were dead by the 7th day, on glass by the 8th day, on cotton, by the 11th day. Various other experiments are detailed.

Urinary Test for Syphilis. Carl D. Gray, Portland, Me., Med. Rec., May 6. Fresh, acid urine, of normal s.g., above 1016, free from even a trace of sugar is used. To 6 C.C. of such urine, add 1 C.C. of a solution of resublimed iodine in chloroform or carbon tetrachlorid (strength not stated) shake thoroughly for several minutes and let stand. If the chloroform is pearly white, the test is negative. If pink or deep purple, it is positive, and syphilis is to be suspected. 1 C.C. of 10% aqueous solution of phosphoric acid is added in the latter case and the tube is again shaken and allowed to settle. If the color is now discharged, the test is negative. The author submits a report of 50 cases of syphilis in all of which the reaction was positive, as it was in all 5 of cases of nervous polyuria and all 10 of cases of polyuria produced by diuretics, and all 5 of cases of glycosuria, and in two cases of gonorrhoea and chancre, and in two of scarlet fever. Otherwise it was found positive in only one case, among 55 surgical cases. A table shows that the test usually corresponds with the results of the Wassermann. Urines of low s.g. always give a positive test. (Note: As stated by the author, the test evidently depends on the presence of an oxidizing agent (negative, colorless reaction) or on the absence of such a substance (colored, positive reaction). But, as recognized in the case of uric acid and diacetic acid, the amount of iodine must be definitely limited as a point is reached at which the oxidizing power is exhausted. We are inclined to think that this reaction cannot depend on any substance specific of syphilis but that the results merely indicate a general concurrence of certain metabolic states with syphilis or even that the drugs usually employed for syphilis produce the results).

Measles Rash following mark of hand slap. A child was slapped by his brother just before the occurrence of measles. The rash followed the outline of the palm and finger on the cheek. *ibid.*

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A. L. BENEDICT, A.M., M.D.

228 Summer Street, Buffalo, N. Y.

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